Appendix E
Assurance Letter from Coastal Zone Management on Water Quality

- **E-1** Costal Zone Management letter of Consistency

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
OFFICE OF COASTAL ZONE MANAGEMENT
251 CAUSEWAY STREET, SUITE 900, BOSTON, MA 02114-2136
(617) 626-1200 FAX: (617) 626-1240

April 24, 2002

Mr. Stewart Dalzell
Deputy Director
Aviation Planning & Development Department
Massachusetts Port Authority
One Harborside Drive, Suite 200S
East Boston, MA 02128-2909

RE: Federal Consistency Certification: Logan Airside Improvements Planning Project, East Boston, Massachusetts

Dear Mr. Dalzell:

The Massachusetts Office of Coastal Zone Management (CZM) has completed its review of the proposed development of a new northwest-southeast taxiway ("centerfield taxiway") at Logan International Airport in East Boston. This project involves the construction of a 9,300 foot taxiway between Runway 4L/22R and 4R/22L which will require the conversion of approximately 37 acres of grassland to paved surface.

Massport has developed a plan to mitigate for impacts caused to the upland sandpiper resulting from the construction of the centerfield taxiway. This plan consists of restoring approximately 150 acres of grassland bird habitat within the Cantonment Areas at the Massachusetts Military Reservation on Cape Cod. A conservation permit was issued by the Massachusetts Division of Fisheries and Wildlife on January 30, 2002, Permit No. 02-015.DFW.

We concur with your certification and find that the activity as proposed is consistent with the CZM enforceable program policies.

If the above-referenced proposal, which has received this concurrence from CZM, is modified in any manner or is noted to be having effects on the coastal zone or its uses that are substantially different than originally proposed, please submit an explanation of the nature of the change to this Office pursuant to 301 CMR 21.17 and 15 CFR 930.66.

Thank you for your cooperation with CZM.

Sincerely,

Thomas W. Skinner
Director

TWS/MEG

cc: Crystal Gardner, Acting Chief
Regulatory Branch, US Army Corps of Engineers
James Sprague, Section Chief
Northeast Regional Office, MA DEP
Sharon Pelosi, Section Chief
Waterways Program, MA DEP
Maureen Gaffney,
CZM Boston Harbor Regional Coordinator

Appendix F
Letters From Airlines and Air Transport Association

- **F-1** American Airlines (American Eagle) February 05, 2002
- **F-2** Atlantic Coast Airlines (d.b.a. ACJet) January 23, 2002
- **F-3** American Airlines (American Eagle) July 26, 2001
- **F-4** Atlantic Coast Airlines (d.b.a. ACJet) July 03, 2001
- **F-5** Air Transport Association of America April 24, 2001
- **F-6** United Airlines July 25, 2001
- **F-7** American Airlines July 19, 2001

American Eagle®
American Airlines®

Tuesday, February 05, 2002

Vincent Scarano
Manager, Airports Division
New England Region
Federal Aviation Administration
12 New England Executive Park
Burlington, MA 01803

Dear Mr. Scarano,

Peter Bowler asked me to respond to your January 3 and January 29 correspondence regarding the proposed Runway 14-32 at Boston Logan International Airport on his behalf. American Eagle Airlines lauds the efforts undergone by the Massachusetts Port Authority and FAA to supply greater air traffic capacity in the saturated Boston Logan market. The addition of runways is an important step in relieving congestion and the regional carriers offer a unique avenue to aid in this vitally important initiative.

Without a doubt the operation of the Saab fleet can operate on the new Runway 14-32 for arrivals and departures a very high percentage of the time. This will have the benefit of reducing congestion for larger turbo-jet operations on the other runways. We feel that this initiative alone will supply a magnitude of relief that will offer Boston Logan a significant increase in capacity and help mitigate traffic delays.

The Embraer RJ fleet operated by American Eagle Airlines is within operational limitations for arrivals assuming the favorable wind and runway conditions cited in your letter. It should be noted that if conditions change such as wet runways, snow/icing, tailwind or less than visual conditions, our landing operations with our jet fleet on Runway 14-32 may be substantially limited. We also feel that enhancements such as GPS/Non-precision approaches would increase the future utility of the runway.

I hope this information is helpful and informative.

Respectfully,

Robert W. Reding
Chief Operations Officer
American Eagle Airlines, Inc.

cc: Peter M. Bowler

ATLANTIC COAST AIRLINES HOLDINGS, INC.

45200 Business Court
Suite 100
Dulles, VA 20166
703 650 6000
Fax 703 650 6299
www.atlanticcoast.com

January 23,2002

FAA, New England Region
Vincent Scarano
Manager, Airports Division
12 New England Executive Park
Burlington. MA 01803

Dear Mr. Scarano:

Atlantic Coast Airlines has always been a strong supporter of this new runway. When the renewed interest in runway 14/32 was brought up several years ago, our Canadair CRJ, CL-600, could not support a 5000' runway, but saw it as an excellent relief valve for the increased congestion and delays when BOS was restricted to a single runway operation due to winds. Today our Do328Jet will be a strong player in our Northeast Corridor markets and is perfectly suited to perform effectively from this planned runway configuration.

To aid in your assessment, we submit that the operational advantages to Atlantic Coast Airlines are many and will be very beneficial. Given your meteorological and runway configuration assumptions, we will have no problem utilizing Runway 14/32. As per the GENOT to FAA Order 7110.118 regarding LAHSO performance categorization, the Do328Jet is classified as a Group 6 LAHSO aircraft. This means that the Do328Jet, at maximum gross weight and approved conditions, can sufficiently land within 5000'. Since this new runway will be used primarily when Northwest winds prevail, we would add that, if the conditions were favorable and with the additional 1000' on either end of paved safety area, Runway 14/32 would become the runway of choice for Atlantic Coast Airlines. Also, due to the proximity to our current ramp and future ramp operations, using a Runway 32 arrival would considerably reduce our taxi times, which would reduce delay frustrations for our passengers.

Several concerns do exist though. With the equitable use of this runway by General Aviation aircraft, smaller carriers such as Cape Air and the limited space for taxiway construction, ground congestion is hopefully being addressed. We will gladly use the runway but if it becomes a bottleneck at the Southwest corner, as it has in the past, our crews would probably request another runway, defeating your objective.

JAN 2 8 2002

LAHSO considerations on 27 would also have to be considered. As runway 27 does not require a rejected landing procedure (RLP) now, it would require an RLP if Runways 32 and 27 were not arrival/arrival configured, also defeating your objective for utilization. Knowing that LAHSO is an important part of your capacity enhancements, this should also be examined carefully.

Lastly, as per the Operations Evolution Plan (OEP) and our aggressive involvement with the ATA FMS Task Force, we would need to address linking FMS arrival procedures specifically for Runway 32 approaches. I know that BOS FMS procedures are high on the OEP priority list and that procedures are rapidly being approved and published. The procedural links should be added as soon as possible. We also will be submitting at the next ATA FMS Task Force plans for a Runway 14 FMS DP specific to the performance characteristics of the Do328Jet; further utilizing and defining this new runway as a vital tool for our operation at BOS.

Again, Atlantic Coast Airlines is in full support and commits to complete utilization with our Do328Jet to Runway 14/32.

Sincerely,

Kerry B. Skeen
Chairman & CEO

American Eagle®
American Airlines®

July 26, 2001

Mr. Thomas J. Kinton
Director of Aviation
Massachusetts Port Authority
One Harborside Drive
Suite 200S
East Boston, MA 02128

Dear Tom,

We are pleased at the progress you are making on getting Runway 14/32 through the Environmental Review process. As Logan's number one carrier in terms of departures, we know better than anyone what an important and effective addition to Logan this runway will be, especially during high wind and inclement weather operations we so often experience.

We expect our Embraer Regional Jets and Saab 340 aircraft to be able to use this runway for arrivals a very high percentage of the time, and then to quickly taxi to our gate location on the south end of the airport, greatly reducing taxi times to everyone's benefit.

We wish you success in this important effort.

Sincerely,

Captain Norman Butterfield
Boston Chief Pilot
American Eagle Airlines, Inc.

CC: Gary Ellmer

ATLANTIC COAST AIRLINES

July 3, 2001

Thomas Kinton
Director of Aviation
1 Harbor Side Drive
Suite 2005
Logan IAP,
Boston, MA 02128

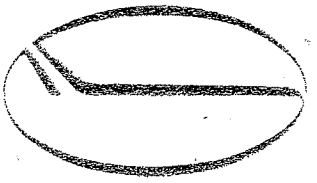
Dear Mr. Kinton:

In reference to our conversations over the last several weeks, I would like to confirm that Atlantic Coast Airlines fully supports the addition of a 5000 runway (14/32). As you know we strongly support the efforts being made to decrease airspace congestion and ATC delays. We believe this effort will be a significant contribution to the safety of flight operations. Atlantic Coast Airlines intends to utilize this 5000 foot runway for our operations when wind and weather conditions permit.

Sincerely,

Robert A. Coulter
Senior Director of Operations
Atlantic Coast Airlines

cc: Bill Lange, Sr., VP, Operations
Kevin Moore, DO-328-300 Fleet Manager
George Chamberlin, System Chief Pilot



Air Transport Association

Edward A. Merlis
Senior Vice President
Legislative and
International Affairs

April 24, 2001

Hon. Michael E. Capuano
House of Representatives
Washington, DC 20515

Dear Congressman Capuano:

Thank you for your letter of April 11 posing a series of questions concerning the use of the proposed commuter runway at Logan and parallels to a commuter runway at Philadelphia. Notwithstanding your vigorous opposition to the construction of Runway 14/32 at Logan, an objective analysis of the factual responses to the operational questions you pose does not support your opposition. If anything, the facts support construction of the runway as a safe, viable, and financially reasonable way to reduce delays and pollution at Logan. As you know, a unidirectional 14/32 adds capacity to a configuration that has less capacity than the other two main operating configurations. As such, the runway will reduce delays when winds are from the northwest. It will also reduce the reliance on the other two higher capacity configurations, thus reducing the associated environmental burdens borne by communities directly north and south of the airport.

I have paraphrased your questions and prepared responses based upon input from pilots, air traffic control specialists, and airport capacity experts in ATA's Aviation Safety and Operations division

1) Your first question asks whether most commercial passenger pilots agree with and/or adhere to the specifications that regional jet aircraft manufacturers specify.

Response All aircraft performance limitations are established by the manufacturer and approved by the FAA as part of the certification process. Required takeoff distances for air carrier aircraft are always longer than landing distances due to higher takeoff weight, climb performance requirements, accelerate/stop distances, etc. These limits are published in the Approved Flight Manual (AFM) and provide the engineering data for the airlines to comply with applicable takeoff and landing distances required by FAR Part 121. They may not be violated except in an emergency situation when the pilot-in-command determines that exceeding a certification limitation is the safest course of action.

Air Transport Association of America
1301 Pennsylvania Ave., NW — Suite 1100 Washington, DC 20004-1707
(202) 626-4182 ❖ FAX (202) 626-4208
emerlis@air-transport.org

With respect to landings on proposed runway 14/32 at BOS, operations will typically be conducted into a headwind. A headwind lowers the ground speed of the aircraft on touchdown and reduces the required landing distance.

Landings on short runways are not uncommon. I am sure that you have landed on runway 01 at Ronald Reagan Washington National Airport -- in an aircraft heavier than those proposed to use 14/32 at BOS -- and turned off onto runway 33 which is approximately 4500 feet from threshold. Large air carrier aircraft also land on runway 33, which is only 5200 feet long. Other examples of short air carrier runways are John Wayne Airport at 5700 feet; and Chicago Midway, where the longest available landing distance is a slightly over 6000 feet and most of the runways have displaced landing thresholds due to close-in obstacles. At LaGuardia, most air carrier aircraft land on runway 4 and turn off before runway 13, a distance of roughly 4700 feet.

2) You ask whether all commercial airlines have firm policies against Regional Jets landing on runways that are shorter than 5,000 feet long.

Response Some air carriers have established minimum landing distances that are in excess of the minimum certificated landing distances as published in the AFM. It is not correct to state that all commercial airlines have firm policies that restrict regional jet landings on runways shorter than 5,000 feet. Regional jet landings are conducted safely every day on runways less than 5,000 feet.

3) You ask whether given the option would most commercial pilots not land a typically loaded RJ on a 5,000-foot runway in calm weather conditions even if manufacturers' specifications permitted them to do so.

Response Given a choice, with calm winds and **no** other factors considered, a pilot would generally select the longest runway available at an airport. However, at airports with multiple runway configurations, operations are invariably conducted on several runways simultaneously. Unless each runway was the exact same length, a circumstance that rarely occurs, using the calm wind scenario in your example and with no other factors considered; the shorter runway would generally be the landing runway and the longer runway would generally be used for takeoff.

With respect to Boston and the proposed new runway, it is expected the tower would use a more efficient runway configuration with a higher capacity in a calm wind condition; unless they were rotating runways for noise abatement purposes. Even with runway 14/32, there are other operating configurations that are more efficient, i.e., have more capacity, such as arrive runways 4L/R, depart runways 4L/R and 9.

Finally, professional airline pilots are trained to operate their aircraft in a wide variety and combination of conditions. Pilots and flight dispatchers are required by FAA regulations to verify and agree that the airplane can be safely landed on the runway of intended use. This joint decision is made prior to departure and takes into account aircraft weight, field elevation, weather and winds at destination as well as any inoperative equipment that may adversely affect landing performance. The captain always has the final authority and may elect to land on another runway if in his/her judgment it is a safer course of action.

4) Would your response to question 3 change if there were a large, brick building located only 1,250 feet from the end of the runway?

Response No, FAR Part 121 regulations for turbojet powered aircraft stipulate that the aircraft must be capable of stopping within 60% of the effective length of the runway using brakes and spoilers only. Although engine thrust reversers are the most effective high speed stopping devices and are used on every landing to reduce the landing roll, no credit for their use may be taken to establish minimum stopping distances during the certification process. This results in an extremely conservative certified landing distance requirement. Runway safety areas will be provided for the runway in accordance with current FAA airport standards and incorporate an added margin of safety.

Your example places an obstacle another 250' beyond the safety area and asks whether most airline pilots would land under those conditions. The answer is yes. Depending on the height of the obstacle however, landings in the opposite direction (over the obstacle) would likely not be permitted. There are several examples of single direction runways that have been used safely and effectively in air carrier operations for many years.

5) Can you tell me why most pilots and airlines refuse to use the new 5,000 foot runway at Philadelphia?

Response: The new runway in PHL is not being utilized to its full potential because of its physical location on the airport, **not because of its length**. The runway also suffers from a significant down slope – the east end of the runway has an elevation of 38 feet, while the west end of the runway has an elevation of only 11 feet. This down slope increases the required landing distance and could restrict some aircraft from using the runway.

Because the runway is located in the extreme eastern portion of the airport, taxi routes to and from the runway are more complicated and longer. There are other operating restrictions that must be observed when the runway is in use. Even if the new runway in Philadelphia were lengthened, these factors would still be present and would limit its utilization. Nevertheless, even with its limitations, new air traffic procedures are currently under development at Philadelphia that will result in more effective use of the runway.

Congressman, while you may not agree with my responses, from the airline industry's perspective, the proposed runway 14/32 at Boston will be safe, will reduce delays, will reduce noise, will cut nighttime flights, will improve local air quality, and will be a sound investment in aviation infrastructure. It is truly an opportunity for both the airport and the surrounding communities to come out winners.

Sincerely,

Edward A. Merlis,
Senior Vice President

Cc: Hon. Jane Garvey, FAA
Virginia Buckingham, MASSPORT
Larry Aldrich, DL
ATA Airport Affairs Committee
ATA State/Local Govt. Affairs Committee

James E. Goodwin
Chairman and
Chief Executive Officer

UNITED

July 25, 2001

Administrator Jane Garvey
Federal Aviation Administration
800 Independence Avenue, S.W.
Room 1010
Washington, D.C. 20591

Dear Administrator Garvey:

As perhaps no one knows better than you, the planning and approval process for the proposed new runway at Boston's Logan Airport has been complex and protracted. With this matter now before you for a decision, I want to strongly urge your prompt approval. While incremental, the addition of this runway capacity is vital, not only to interests in Boston and the Northeastern United States, but indeed to the strength and efficiency of our entire air transportation system. In an era of ever tightening airport system capacity, every project at a major airport is important. Clearly, this is a time for the strong leadership that is key to the addition of new airport capacity.

It should be noted, as well, that some in the local community have undertaken to stifle the utility of this new capacity by suggesting preconditions to its construction that are simply unacceptable (i.e., peak-hour pricing, emissions credit purchases, etc.). As strongly as I would urge you to approve moving forward with the runway, I would also urge your rejection of these proposals. It would be extraordinarily destructive were we to proceed in the direction of letting any runway project be held hostage to the local implementation of a unilateral vision of national transportation policy. If these issues are to be debated, it must occur at the national level.

Again, I would urge that you proceed with the approval process for the new runway and thank you for your continuing leadership in the pursuit of critical new aviation system capacity.

Sincerely,

James E. Goodwin

American Airlines

D. J. Carty
Chairman, President, and CEO

July 19, 2001

Administrator Jane Garvey
Federal Aviation Administration
800 Independence Avenue, SW
Room 1010
Washington, DC 20591

Dear Jane:

I understand the proposal for the new runway at Boston's Logan Airport is now finally before you for decision and I just wanted to go on record on the subject, although I'm sure you are aware of American's views. The additional capacity is vital to all of us, and I would urge you to proceed as quickly as possible.

Thanks for all you do.

Sincerely,

ts

P. O. Box 619616, M.D. 5624, Dallas/Fort Worth Airport, Texas 75261-9616
Phone: 817-967-3500 Fax: 817-967-9220 E-mail: don_carty@amrcorp.com

American Airlines

D. J. Carty
Chairman, President, and CEO

July 19, 2001

The Honorable John F. Kerry
United States Senate
315 Russell Senate Office Building
Washington, DC 20510

Dear Senator Kerry:

As America's largest air carrier, American Airlines is proud of our record of success answering the challenge issued by Congress to improve air travel for the hundreds of millions of Americans who fly each year. New products, services, technologies and procedures have vastly improved customer service and have significantly reduced the number of passenger complaints. Across the country, American Airlines has invested billions of dollars to refurbish our terminals. In Boston, which is a very important market for American Airlines, we will invest $300 million to improve our terminal at Logan Airport for the comfort and convenience of our customers.

Yet, despite this progress, the airline industry remains powerless to address the number one complaint that plagues airlines and passengers today: chronic flight delays. We remain victims of the success of airline deregulation, the popularity of air travel, and the failure to expand aviation capacity to meet the public's demand. While many of the steps we have taken so far will help a good deal, there is a concrete solution to many of our capacity problems – concrete. We need new runways at airports across the country and simply can't wait 15 to 20 years for each to be built.

This is especially true in Boston. Flight delays at Logan Airport rank among the worst in the country. They pose a serious threat to the efficiency of the national aviation system, to the economic viability of the airline industry, and to Boston's standing as a premier travel and business destination with passengers and airlines like mine.

That is why American Airlines believes Runway 14/32 must be built, and why it is critical the FAA move quickly to approve the runway now that Massachusetts' own environmental regulators have certified the project's operational and environmental benefits. As someone who has spoken out in the past on the need for Massachusetts to modernize its transportation system, we urge you to take whatever steps you think appropriate to ensure that Logan Airport's critical runway project moves forward.

Sincerely,

ts

P. O. Box 619616, M.D. 5624, Dallas/Fort Worth Airport, Texas 75261-9616
Phone: 817-967-3500 Fax: 817-967-9220 E-mail: don_carty@amrcorp.com

American Airlines

D. J. Carty
Chairman, President, and CEO

July 19, 2001

The Honorable Edward M. Kennedy
United States Senate
315 Russell Senate Office Building
Washington, DC 20510

Dear Senator Kennedy:

As America's largest air carrier, American Airlines is proud of our record of success answering the challenge issued by Congress to improve air travel for the hundreds of millions of Americans who fly each year. New products, services, technologies and procedures have vastly improved customer service and have significantly reduced the number of passenger complaints. Across the country, American Airlines has invested billions of dollars to refurbish our terminals. In Boston, which is a very important market for American Airlines, we will invest $300 million to improve our terminal at Logan Airport for the comfort and convenience of our customers.

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That is why American Airlines believes Runway 14/32 must be built, and why it is critical the FAA move quickly to approve the runway now that Massachusetts' own environmental regulators have certified the project's operational and environmental benefits. As someone who has spoken out in the past on the need for Massachusetts to modernize its transportation system, we urge you to take whatever steps you think appropriate to ensure that Logan Airport's critical runway project moves forward.

Sincerely,

ts

P. O. Box 619616, M.D. 5624, Dallas/Fort Worth Airport, Texas 75261-9616
Phone: 817-967-3500 Fax: 817-967-9220 E-mail: don_carty@amrcorp.com

Appendix G
Runway 32 Instrumentation

➢ **G-1** DELAYSIM Results with Higher Approach Minimums

Appendix G
Runway 32 Instrumentation

Runway 14/32 has always been designed as an IFR runway with a non-precision approach. During the transition to wide-spread GPS (Global Positioning System) approaches in the country, an instrument landing system (ILS) localizer and glideslope[1] were planned for installation on Runway 32 to allow stabilized approaches to a minimum ceiling of approximately 400 feet and a minimum visibility of ¾ mile. The primary reason for providing navigation instrumentation for the runway is to enhance safety by providing positive guidance to air carrier aircraft during visual as well as non-visual weather conditions. Due to equipment interference restrictions, a practical near-term location for the ILS localizer at Logan has not yet been determined. Instead, the FAA has accelerated the development of GPS approach procedures for Runway 32.

In this Final EIS additional analysis was performed to determine the operational impacts if a localizer was not installed in the near-term, and just a non-precision GPS approach was available. The FAA estimates that 20 percent of the current Logan fleet is equipped with GPS receivers, but anticipates this figure would be higher in the future and that all RJs would be equipped with GPS. These assumptions were incorporated into the DELAYSIM model using the 37.5M High RJ Fleet and a non-precision GPS approach to Runway 32 with minimums of 700 feet and 1-mile visibility.

The results of the analysis shown in Table G-1 clearly demonstrate that limiting Runway 32 approaches to the higher approach minimums in the interim has very little impact on delay reduction benefits. Instead of reducing delays by 108,700 annual hours, the Preferred Alternative with the GPS approach would provide 100,100 annual hours of delay reduction. This represents a change in delay reduction from 29 percent to 27 percent, and an increase in average delays with the Preferred Alternative from 27.0 to 27.9 minutes per operation. Furthermore, an examination of the runway use in terms of equivalent operations shows only small changes (Refer to Table G-1). The FAA believes that approach minimums as low as 400 feet and a visibility of ¾ miles are reasonably foreseeable with precision GPS approaches.

[1] A localizer antenna is part of an Instrument Landing System (ILS) that provides horizontal guidance to pilots during precision approaches. Vertical guidance is provided by the glide slope transmitter.

Table G-1
DELAYSIM Results with Higher 32 Approach Minimums, 37.5M High RJ Fleet

Case Name		PRAS Goal	1999 Actual	2015 Modified RJ Fleet, 97-99 Weather		
					Preferred Alternative	
				No Action	ILS localizer & glide slope with 400 ft ceiling / 3/4 mile visibility	GPS approach with 700 ft ceiling / 1 mile visibility
Pct of Equivalent Arrival Operations	Rwy 4	21.1%	30.6%	43.6%	31.8%	32.2%
	Rwy 9	0.0%	0.0%	0.1%	0.9%	0.9%
	Rwy 14	N/A	0.0%	0.0%	0.0%	0.0%
	Rwy 15	8.4%	2.2%	0.6%	2.4%	2.3%
	Rwy 22	6.5%	15.1%	26.7%	20.1%	20.1%
	Rwy 27	21.7%	22.5%	11.9%	7.4%	7.2%
	Rwy 32	N/A	0.0%	0.0%	7.6%	7.5%
	Rwy 33	42.3%	29.6%	17.1%	29.7%	29.7%
Pct of Equivalent Departure Operations	Rwy 4	5.6%	6.3%	9.4%	8.2%	8.2%
	Rwy 9	13.3%	25.5%	36.6%	28.4%	28.7%
	Rwy 14	N/A	0.0%	0.0%	0.1%	0.1%
	Rwy 15	23.3%	11.5%	6.3%	8.6%	8.5%
	Rwy 22	28.0%	33.9%	38.0%	22.9%	22.8%
	Rwy 27	17.9%	17.0%	7.0%	21.6%	21.9%
	Rwy 32	N/A	0.0%	0.0%	0.0%	0.0%
	Rwy 33	11.9%	5.8%	2.7%	10.2%	9.8%
Abs. Dev from PRAS Goals			75.4	159.8	93.4	95.1
PRAS Performance Index			726.0	2,852.9	1,058.0	1,087.2
Annual Operations				584,722	584,722	584,722
Annual Hours of Delay				372,220	263,489	272,061
	VFR			192,882	97,554	103,658
	IFR			179,338	165,935	168,403
Avg Delay per Op (mins)				38.2	27.0	27.9
Avg Delay per Op with Cancellations (mins)				28.6	20.0	20.6
Pct Change in Total Delay vs. Baseline					29.2%	26.9%

Appendix H
Noise Analysis-
2000 Census Update

- **H-1** 1990 Census Counts by Fleet and by Alternative
- **H-2** 2000 Census Counts by Fleet and by Alternative
- **H-3** Comparison Population Counts Adjusted for 2000 Census

LOGAN AIRSIDE IMPROVEMENTS FEIS
Table H-1
1990 Census Counts by Fleet and by Alternative

		29 Low Fleet						
Town Name	**DNL**	**Alt 4**	**Alt 1a**	**Alt 1**	**Alt 2/3**	**Alt 1A - Alt 4**	**Alt 1 - Alt 4**	**Alt 2/3 - Alt 4**
Chelsea	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	3056	3300	3171	2900	244	115	-156
	Above 60	10232	10370	10282	10232	138	50	0
Everett	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	220	340	340	0	120	120	-220
E. Boston - Eagle Hill	**Above 75**	0	0	0	0	0	0	0
	Above 70	280	280	280	280	0	0	0
	Above 65	4134	4134	4134	4134	0	0	0
	Above 60	15921	15921	In "Other E.Bos"		0	N/A	
E. Boston - Orient Hts./ Bayswater St.	**Above 75**	58	0	0	58	-58	-58	0
	Above 70	157	118	58	118	-39	-99	-39
	Above 65	612	751	751	612	139	139	0
	Above 60	4332	4457	In "Other E.Bos"		125	N/A	
E. Boston - Jeffries Point	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	1842	1842	1842	1842	0	0	0
Other E. Boston	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	2371	2371	2371	2169	0	0	-202
	Above 60	3940	3940	24318	23623	0	N/A	
Total East Boston	**Above 75**	58	0	0	58	-58	-58	0
	Above 70	437	398	338	398	-39	-99	-39
	Above 65	7117	7256	7256	6915	139	139	-202
	Above 60	26035	26160	26160	25465	125	125	-570
South Boston	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	66	98	98	66	32	32	0
	Above 60	6010	6603	6603	6182	593	593	172
Boston (Other)	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	0	0	0	0	0	0	0
Long Island	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	0	502	502	0	502	502	0
Quincy	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	0	0	0	0	0	0	0
Revere	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	3001	2999	2896	2999	-2	-105	-2
	Above 60	5227	5115	5115	5115	-112	-112	-112
Winthrop - Point Shirley	**Above 75**	199	77	77	164	-122	-122	-35
	Above 70	862	673	656	825	-189	-206	-37
	Above 65	1924	1649	1649	1863	-275	-275	-61
	Above 60	2973	2657	In "Winthrop"		-316	N/A	
Winthrop - Court Road	**Above 75**	0	0	0	0	0	0	0
	Above 70	222	388	388	222	166	166	0
	Above 65	1523	1763	1763	1369	240	240	-154
	Above 60	3387	3387	In "Winthrop"		0	N/A	
Rest of Winthrop	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	844	844	844	780	0	0	-64
	Above 60	5439	5284	In "Winthrop"		-155	N/A	
Total Winthrop	**Above 75**	199	77	77	164	-122	-122	-35
	Above 70	1084	1061	1044	1047	-23	-40	-37
	Above 65	4291	4256	4256	4012	-35	-35	-279
	Above 60	11799	11328	11252	11380	-471	-547	-419
Total Population Summary	**Above 75**	257	77	77	222	-180	-180	-35
	Above 70	1521	1459	1382	1445	-62	-139	-76
	Above 65	17531	17909	17677	16892	378	146	-639
	Above 60	59523	60418	60254	58374	895	731	-1149

Notes:
1. Population counts include institutional population on Long Island where applicable.
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LOGAN AIRSIDE IMPROVEMENTS FEIS
Table H-1 Continued
1990 Census Counts by Fleet and by Alternative

		29 High Fleet						
Town Name	**DNL**	**Alt 4**	**Alt 1a**	**Alt 1**	**Alt 2/3**	**Alt 1A - Alt 4**	**Alt 1 - Alt 4**	**Alt 2/3 - Alt 4**
Chelsea	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	2613	2613	0	2613	2613	0
	Above 60	6906	9112	8966	7069	2206	2060	163
Everett	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	0	144	144	0	144	144	0
E. Boston - Eagle Hill	**Above 75**	Consolidated under "Other E. Boston"				N/A		
	Above 70							
	Above 65							
	Above 60							
E. Boston - Orient Hts./ Bayswater St.	**Above 75**	Consolidated under "Other E. Boston"				N/A		
	Above 70							
	Above 65							
	Above 60							
E. Boston - Jeffries Point	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	151	662	662	151	511	511	0
Other E. Boston	**Above 75**	0	0	0	0	0	0	0
	Above 70	157	295	295	58	138	138	-99
	Above 65	3585	4684	4589	3721	1099	1004	136
	Above 60	17162	19355	19355	18315	2193	2193	1153
Total East Boston	**Above 75**	0	0	0	0	0	0	0
	Above 70	157	295	295	58	138	138	-99
	Above 65	3585	4684	4589	3721	1099	1004	136
	Above 60	17313	20017	20017	18466	2704	2704	1153
South Boston	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	18	80	55	18	62	37	0
	Above 60	3986	6023	5104	4368	2037	1118	382
Boston (Other)	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	0	0	0	0	0	0	0
Long Island	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	0	502	502	0	502	502	0
Quincy	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	0	0	0	0	0	0	0
Revere	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	3091	2471	2340	2896	-620	-751	-195
	Above 60	5447	4774	4774	5244	-673	-673	-203
Winthrop - Point Shirley	**Above 75**	Consolidated under "Winthrop"				N/A		
	Above 70							
	Above 65							
	Above 60							
Winthrop - Court Road	**Above 75**	Consolidated under "Winthrop"				N/A		
	Above 70							
	Above 65							
	Above 60							
Rest of Winthrop	**Above 75**	Consolidated under "Winthrop"				N/A		
	Above 70							
	Above 65							
	Above 60							
Total Winthrop	**Above 75**	164	0	0	77	-164	-164	-87
	Above 70	1047	639	639	1047	-408	-408	0
	Above 65	3710	2932	2914	3334	-778	-796	-376
	Above 60	11017	9633	9481	10450	-1384	-1536	-567
Total Population Summary	**Above 75**	164	0	0	77	-164	-164	-87
	Above 70	1204	934	934	1105	-270	-270	-99
	Above 65	10404	12780	12511	9969	2376	2107	-435
	Above 60	44669	50205	48988	45597	5536	4319	928

Notes:
1. Population counts include institutional population on Long Island where applicable.
2. Shaded blocks indicate neighborhoods where DEIS population counts were consolidated by town but where subsequent counts were broken down in finer detail by neighborhood.

LOGAN AIRSIDE IMPROVEMENTS FEIS
Table H-1 Continued
1990 Census Counts by Fleet and by Alternative

		37 Low Fleet						
Town Name	**DNL**	**Alt 4**	**Alt 1a**	**Alt 1**	**Alt 2/3**	**Alt 1A - Alt 4**	**Alt 1 - Alt 4**	**Alt 2/3 - Alt 4**
Chelsea	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	1807	1807	0	1807	1807	0
	Above 60	6544	8215	8215	6575	1671	1671	31
Everett	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	0	144	144	0	144	144	0
E. Boston - Eagle Hill	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	1406	2079	2079	1406	673	673	0
	Above 60	8076	9202	8871	8076	1126	795	0
E. Boston - Orient Hts./	**Above 75**	58	58	0	58	0	-58	0
Bayswater St.	**Above 70**	157	118	58	157	-39	-99	0
	Above 65	612	402	402	612	-210	-210	0
	Above 60	3451	2943	2943	3451	-508	-508	0
E. Boston - Jeffries	**Above 75**	0	0	0	0	0	0	0
Point	**Above 70**	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	582	662	662	151	80	80	-431
Other E. Boston	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	1394	716	716	1394	-678	-678	0
	Above 60	4006	4006	4006	4006	0	0	0
Total East Boston	**Above 75**	58	58	0	58	0	-58	0
	Above 70	157	118	58	157	-39	-99	0
	Above 65	3412	3197	3197	3412	-215	-215	0
	Above 60	16115	16813	16482	15684	698	367	-431
South Boston	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	18	0	0	18	-18	-18	0
	Above 60	2002	4029	4232	2008	2027	2230	6
Boston (Other)	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	623	432	429	621	-191	-194	-2
Long Island	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	0	502	502	0	502	502	0
Quincy	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	0	0	0	0	0	0	0
Revere	**Above 75**	0	0	0	0	0	0	0
	Above 70	1047	0	0	689	-1047	-1047	-358
	Above 65	3357	2808	2808	3293	-549	-549	-64
	Above 60	5826	4603	4603	5575	-1223	-1223	-251
Winthrop - Point Shirley	**Above 75**	77	0	0	0	-77	-77	-77
	Above 70	782	455	455	673	-327	-327	-109
	Above 65	1649	1395	1395	1649	-254	-254	0
	Above 60	In "Winthrop"				N/A		
Winthrop - Court Road	**Above 75**	0	0	0	0	0	0	0
	Above 70	222	157	157	157	-65	-65	-65
	Above 65	1234	1007	1007	1234	-227	-227	0
	Above 60	In "Winthrop"				N/A		
Rest of Winthrop	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	780	267	267	633	-513	-513	-147
	Above 60	In "Winthrop"				N/A		
Total Winthrop	**Above 75**	77	0	0	0	-77	-77	-77
	Above 70	1004	612	612	830	-392	-392	-174
	Above 65	3663	2669	2669	3516	-994	-994	-147
	Above 60	10846	9487	9442	10320	-1359	-1404	-526
Total Population	**Above 75**	135	58	0	58	-77	-135	-77
Summary	**Above 70**	2208	730	670	1676	-1478	-1538	-532
	Above 65	10450	10481	10481	10239	31	31	-211
	Above 60	41956	44225	44049	40783	2269	2093	-1173

Notes:
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LOGAN AIRSIDE IMPROVEMENTS FEIS
Table H-1 Continued
1990 Census Counts by Fleet and by Alternative

		37 High RJ Fleet						
Town Name	**DNL**	**Alt 4**	**Alt 1a**	**Alt 1**	**Alt 2/3**	**Alt 1A - Alt 4**	**Alt 1 - Alt 4**	**Alt 2/3 - Alt 4**
Chelsea	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	392	1084	0	392	1084	0
	Above 60	1601	8117	8488	1547	6516	6887	-54
Everett	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	0	0	0	0	0	0	0
E. Boston - Eagle Hill	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	1	0	0	1	0
	Above 65	120	3133	3160	113	3013	3040	-7
	Above 60	3956	11247	11347	3393	7291	7391	-563
E. Boston - Orient Hts./	**Above 75**	58	58	58	58	0	0	0
Bayswater St.	**Above 70**	355	239	239	355	-116	-116	0
	Above 65	1135	606	606	1170	-529	-529	35
	Above 60	4213	3287	3069	4213	-926	-1144	0
E. Boston - Jeffries	**Above 75**	0	0	0	0	0	0	0
Point	**Above 70**	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	0	0	151	0	0	151	0
Other E. Boston	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	986	649	918	986	-337	-68	0
	Above 60	3940	4091	4157	3940	151	217	0
Total East Boston	**Above 75**	58	58	58	58	0	0	0
	Above 70	355	239	240	355	-116	-115	0
	Above 65	2241	4388	4684	2269	2147	2443	28
	Above 60	12109	18625	18724	11546	6516	6615	-563
South Boston	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	1080	765	429	872	-315	-651	-208
	Above 60	3479	6950	5801	3046	3471	2322	-433
Boston (Other)	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	674	482	429	625	-192	-245	-49
Long Island	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	0	0	0	0	0	0	0
Quincy	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	0	0	0	0	0	0	0
Revere	**Above 75**	0	0	0	0	0	0	0
	Above 70	2260	1389	1205	2304	-871	-1055	44
	Above 65	3854	3428	3428	3854	-426	-426	0
	Above 60	7901	6052	5808	8472	-1849	-2093	571
Winthrop - Point Shirley	**Above 75**	164	0	0	77	-164	-164	-87
	Above 70	697	417	353	537	-280	-344	-160
	Above 65	1542	1305	1266	1452	-237	-276	-90
	Above 60	2527	2291	2195	2401	-236	-332	-126
Winthrop - Court Road	**Above 75**	0	0	0	0	0	0	0
	Above 70	388	222	222	388	-166	-166	0
	Above 65	1661	1128	1128	1661	-533	-533	0
	Above 60	3387	3387	3387	3387	0	0	0
Rest of Winthrop	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	1115	451	451	1115	-664	-664	0
	Above 60	5179	4144	3532	5000	-1035	-1647	-179
Total Winthrop	**Above 75**	164	0	0	77	-164	-164	-87
	Above 70	1085	639	575	925	-446	-510	-160
	Above 65	4318	2884	2845	4228	-1434	-1473	-90
	Above 60	11093	9822	9114	10788	-1271	-1979	-305
Total Population	**Above 75**	222	58	58	135	-164	-164	-87
Summary	**Above 70**	3700	2267	2020	3584	-1433	-1680	-116
	Above 65	11493	11857	12470	11223	364	977	-270
	Above 60	36857	50048	48364	36024	13191	11507	-833

Notes:
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LOGAN AIRSIDE IMPROVEMENTS FEIS
Table H-1 Continued
1990 Census Counts by Fleet and by Alternative

		37 High Fleet						
Town Name	**DNL**	**Alt 4**	**Alt 1a**	**Alt 1**	**Alt 2/3**	**Alt 1A - Alt 4**	**Alt 1 - Alt 4**	**Alt 2/3 - Alt 4**
Chelsea	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	1415	2064	0	1415	2064	0
	Above 60	3095	8488	8661	2727	5393	5566	-368
Everett	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	0	0	238	0	0	238	0
E. Boston - Eagle Hill	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	120	0	0	120	0
	Above 65	237	2593	2593	237	2356	2356	0
	Above 60	5058	12379	In "Other E.Bos"		7321	N/A	
E. Boston - Orient Hts./	**Above 75**	58	58	58	58	0	0	0
Bayswater St.	**Above 70**	355	157	157	285	-198	-198	-70
	Above 65	1170	596	745	1170	-574	-425	0
	Above 60	5128	3451	In "Other E.Bos"		-1677	N/A	
E. Boston - Jeffries	**Above 75**	0	0	0	0	0	0	0
Point	**Above 70**	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	662	1230	582	151	568	-80	-511
Other E. Boston	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	1599	1058	931	1045	-541	-668	-554
	Above 60	3940	3940	19293	12054	0	N/A	
Total East Boston	**Above 75**	58	58	58	58	0	0	0
	Above 70	355	157	277	285	-198	-78	-70
	Above 65	3006	4247	4269	2452	1241	1263	-554
	Above 60	14788	21000	19875	12205	6212	5087	-2583
South Boston	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	55	48	18	872	-7	-37	817
	Above 60	3094	6002	6338	3418	2908	3244	324
Boston (Other)	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	674	432	378	625	-242	-296	-49
Long Island	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	0	502	502	0	502	502	0
Quincy	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	0	0	0	0	0	0	0
Revere	**Above 75**	0	0	0	0	0	0	0
	Above 70	2260	172	172	1823	-2088	-2088	-437
	Above 65	3799	3293	3357	3799	-506	-442	0
	Above 60	8472	5658	6079	7690	-2814	-2393	-782
Winthrop - Point Shirley	**Above 75**	199	0	0	199	-199	-199	0
	Above 70	825	417	482	825	-408	-343	0
	Above 65	1863	1395	1452	1649	-468	-411	-214
	Above 60	2828	2401	In "Winthrop"		-427	N/A	
Winthrop - Court Road	**Above 75**	0	0	0	0	0	0	0
	Above 70	388	282	282	388	-106	-106	0
	Above 65	1661	1234	1356	1661	-427	-305	0
	Above 60	3387	3387	In "Winthrop"		0	N/A	
Rest of Winthrop	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	1115	375	835	1115	-740	-280	0
	Above 60	5321	4283	In "Winthrop"		-1038	N/A	
Total Winthrop	**Above 75**	199	0	0	199	-199	-199	0
	Above 70	1213	699	764	1213	-514	-449	0
	Above 65	4639	3004	3643	4425	-1635	-996	-214
	Above 60	11536	10071	10457	11365	-1465	-1079	-171
Total Population	**Above 75**	257	58	58	257	-199	-199	0
Summary	**Above 70**	3828	1028	1213	3321	-2800	-2615	-507
	Above 65	11499	12007	13351	11548	508	1852	49
	Above 60	41659	52153	52528	38030	10494	10869	-3629

Notes:
1. Population counts include institutional population on Long Island where applicable.
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LOGAN AIRSIDE IMPROVEMENTS FEIS
Table H-1 Continued
1990 Census Counts by Fleet and by Alternative

		45 High Fleet						
Town Name	**DNL**	**Alt 4**	**Alt 1a**	**Alt 1**	**Alt 2/3**	**Alt 1A - Alt 4**	**Alt 1 - Alt 4**	**Alt 2/3 - Alt 4**
Chelsea	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	392	1807	0	392	1807	0
	Above 60	2253	8422	8490	1807	6169	6237	-446
Everett	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	0	0	144	0	0	144	0
E. Boston - Eagle Hill	**Above 75**	Consolidated under "Other E. Boston"				N/A		
	Above 70							
	Above 65							
	Above 60							
E. Boston - Orient Hts./ Bayswater St.	**Above 75**	Consolidated under "Other E. Boston"				N/A		
	Above 70							
	Above 65							
	Above 60							
E. Boston - Jeffries Point	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	1272	1272	1040	582	0	-232	-690
Other E. Boston	**Above 75**	58	58	58	58	0	0	0
	Above 70	464	355	351	355	-109	-113	-109
	Above 65	4334	4320	4306	3502	-14	-28	-832
	Above 60	13915	19807	19562	11147	5892	5647	-2768
Total East Boston	**Above 75**	58	58	58	58	0	0	0
	Above 70	464	355	351	355	-109	-113	-109
	Above 65	4334	4320	4306	3502	-14	-28	-832
	Above 60	15187	21079	20602	11729	5892	5415	-3458
South Boston	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	765	477	813	1080	-288	48	315
	Above 60	4417	9410	8227	4341	4993	3810	-76
Boston (Other)	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	1739	1003	621	1003	-736	-1118	-736
Long Island	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	502	502	502	502	0	0	0
Quincy	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	1456	0	0	0	-1456	-1456	-1456
Revere	**Above 75**	0	0	0	0	0	0	0
	Above 70	2808	2141	1336	2346	-667	-1472	-462
	Above 65	4603	3854	3606	3884	-749	-997	-719
	Above 60	11350	8472	7467	9242	-2878	-3883	-2108
Winthrop - Point Shirley	**Above 75**	Consolidated under "Winthrop"				N/A		
	Above 70							
	Above 65							
	Above 60							
Winthrop - Court Road	**Above 75**	Consolidated under "Winthrop"				N/A		
	Above 70							
	Above 65							
	Above 60							
Rest of Winthrop	**Above 75**	Consolidated under "Winthrop"				N/A		
	Above 70							
	Above 65							
	Above 60							
Total Winthrop	**Above 75**	277	120	77	245	-157	-200	-32
	Above 70	1770	1144	1064	1522	-626	-706	-248
	Above 65	6447	5338	4364	5302	-1109	-2083	-1145
	Above 60	13942	11918	11252	13461	-2024	-2690	-481
Total Population Summary	**Above 75**	335	178	135	303	-157	-200	-32
	Above 70	5042	3640	2751	4223	-1402	-2291	-819
	Above 65	16149	14381	14896	13768	-1768	-1253	-2381
	Above 60	50846	60806	57305	42085	9960	6459	-8761

Notes:
1. Population counts include institutional population on Long Island where applicable.
2. Shaded blocks indicate neighborhoods where DEIS population counts were consolidated by town but where subsequent counts were broken down in finer detail by neighborhood.

LOGAN AIRSIDE IMPROVEMENTS FEIS
Table H-2
2000 Census Counts by Fleet and by Alternative

		29 Low Fleet						
Town Name	**DNL**	**Alt 4**	**Alt 1a**	**Alt 1**	**Alt 2/3**	**Alt 1A - Alt 4**	**Alt 1 - Alt 4**	**Alt 2/3 - Alt 4**
Chelsea	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	2901	3302	3302	2664	401	401	-237
	Above 60	12047	12047	12047	12047	0	0	0
Everett	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	319	1956	2216	0	1637	1897	-319
E. Boston - Eagle Hill	**Above 75**	0	0	0	0	0	0	0
	Above 70	335	335	335	335	0	0	0
	Above 65	5864	5112	5112	5864	-752	-752	0
	Above 60	17048	17048	17048	17048	0	0	0
E. Boston - Orient Hts./Bayswater St.	**Above 75**	0	0	0	0	0	0	0
	Above 70	257	164	164	164	-93	-93	-93
	Above 65	585	715	710	580	130	125	-5
	Above 60	4304	4597	4597	3983	293	293	-321
E. Boston - Jeffries Point	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	2343	2343	2343	2343	0	0	0
Other E. Boston	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	2373	2373	2373	2179	0	0	-194
	Above 60	6462	6784	6784	6462	322	322	0
Total East Boston	**Above 75**	0	0	0	0	0	0	0
	Above 70	592	499	499	499	-93	-93	-93
	Above 65	8822	8200	8195	8623	-622	-627	-199
	Above 60	30157	30772	30772	29836	615	615	-321
South Boston	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	61	61	0	61	61	0
	Above 60	7358	7110	7110	7730	-248	-248	372
Boston (Other)	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	136	1565	1565	0	1429	1429	-136
Long Island	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	0	0	0	0	0	0	0
Quincy	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	610	610	610	610	0	0	0
Revere	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	3074	2994	2994	2994	-80	-80	-80
	Above 60	6147	5890	5688	5688	-257	-459	-459
Winthrop - Point Shirley	**Above 75**	122	2	2	82	-120	-120	-40
	Above 70	920	603	603	778	-317	-317	-142
	Above 65	1916	1563	1563	1850	-353	-353	-66
	Above 60	3067	2714	2714	3020	-353	-353	-47
Winthrop - Court Road	**Above 75**	0	0	0	0	0	0	0
	Above 70	100	279	279	0	179	179	-100
	Above 65	1486	1618	1618	1456	132	132	-30
	Above 60	3191	3191	3191	3191	0	0	0
Rest of Winthrop	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	761	824	824	469	63	63	-292
	Above 60	5139	5225	5139	4932	86	0	-207
Total Winthrop	**Above 75**	122	2	2	82	-120	-120	-40
	Above 70	1020	882	882	778	-138	-138	-242
	Above 65	4163	4005	4005	3775	-158	-158	-388
	Above 60	11397	11130	11044	11143	-267	-353	-254
Total Population Summary	**Above 75**	122	2	2	82	-120	-120	-40
	Above 70	1612	1381	1381	1277	-231	-231	-335
	Above 65	18960	18562	18557	18056	-398	-403	-904
	Above 60	68171	71080	71052	67054	2909	2881	-1117

Notes:
1. Population counts include institutional population on Long Island where applicable.

LOGAN AIRSIDE IMPROVEMENTS FEIS
Table H-2 Continued
2000 Census Counts by Fleet and by Alternative

		29 High Fleet						
Town Name	**DNL**	**Alt 4**	**Alt 1a**	**Alt 1**	**Alt 2/3**	**Alt 1A - Alt 4**	**Alt 1 - Alt 4**	**Alt 2/3 - Alt 4**
Chelsea	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	2866	2863	0	2866	2863	0
	Above 60	7816	10378	10378	7929	2562	2562	113
Everett	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	0	1617	1617	0	1617	1617	0
E. Boston - Eagle Hill	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	332	281	0	332	281	0
	Above 65	2655	4524	4524	3016	1869	1869	361
	Above 60	13163	14844	14844	13596	1681	1681	433
E. Boston - Orient	**Above 75**	0	0	0	0	0	0	0
Hts./Bayswater St.	**Above 70**	257	132	65	164	-125	-192	-93
	Above 65	574	569	569	569	-5	-5	-5
	Above 60	3983	3524	3524	3959	-459	-459	-24
E. Boston - Jeffries	**Above 75**	0	0	0	0	0	0	0
Point	**Above 70**	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	736	736	736	736	0	0	0
Other E. Boston	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	823	870	870	780	47	47	-43
	Above 60	3979	4845	4845	4116	866	866	137
Total East Boston	**Above 75**	0	0	0	0	0	0	0
	Above 70	257	464	346	164	207	89	-93
	Above 65	4052	5963	5963	4365	1911	1911	313
	Above 60	21861	23949	23949	22407	2088	2088	546
South Boston	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	61	61	0	61	61	0
	Above 60	4157	7038	6697	5405	2881	2540	1248
Boston (Other)	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	136	1565	1549	0	1429	1413	-136
Long Island	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	0	0	0	0	0	0	0
Quincy	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	610	610	610	610	0	0	0
Revere	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	3222	2485	2485	2994	-737	-737	-228
	Above 60	6335	5345	5345	5923	-990	-990	-412
Winthrop - Point	**Above 75**	82	0	0	2	-82	-82	-80
Shirley	**Above 70**	778	439	370	723	-339	-408	-55
	Above 65	1701	1280	1228	1670	-421	-473	-31
	Above 60	2728	2329	2329	2714	-399	-399	-14
Winthrop - Court	**Above 75**	0	0	0	0	0	0	0
Road	**Above 70**	100	100	0	0	0	-100	-100
	Above 65	1024	1024	1024	1024	0	0	0
	Above 60	3191	3191	3191	3191	0	0	0
Rest of Winthrop	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	469	239	239	239	-230	-230	-230
	Above 60	4742	3696	3446	4071	-1046	-1296	-671
Total Winthrop	**Above 75**	82	0	0	2	-82	-82	-80
	Above 70	878	539	370	723	-339	-508	-155
	Above 65	3194	2543	2491	2933	-651	-703	-261
	Above 60	10661	9216	8966	9976	-1445	-1695	-685
Total Population	**Above 75**	82	0	0	2	-82	-82	-80
Summary	**Above 70**	1135	1003	716	887	-132	-419	-248
	Above 65	10468	13918	13863	10292	3450	3395	-176
	Above 60	51576	59718	59111	52250	8142	7535	674

Notes:
1. Population counts include institutional population on Long Island where applicable.

LOGAN AIRSIDE IMPROVEMENTS FEIS
Table H-2 Continued
2000 Census Counts by Fleet and by Alternative

		37 Low Fleet						
Town Name	**DNL**	**Alt 4**	**Alt 1a**	**Alt 1**	**Alt 2/3**	**Alt 1A - Alt 4**	**Alt 1 - Alt 4**	**Alt 2/3 - Alt 4**
Chelsea	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	1716	1811	0	1716	1811	0
	Above 60	6837	8999	8591	7191	2162	1754	354
Everett	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	0	1805	1805	0	1805	1805	0
E. Boston - Eagle Hill	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	268	268	0	268	268	0
	Above 65	2152	2655	2655	2443	503	503	291
	Above 60	10583	12630	12630	11020	2047	2047	437
E. Boston - Orient	**Above 75**	65	0	0	0	-65	-65	-65
Hts./Bayswater St.	**Above 70**	257	164	164	257	-93	-93	0
	Above 65	585	569	539	580	-16	-46	-5
	Above 60	3677	3524	3178	3677	-153	-499	0
E. Boston - Jeffries	**Above 75**	0	0	0	0	0	0	0
Point	**Above 70**	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	736	736	736	736	0	0	0
Other E. Boston	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	1506	780	780	1286	-726	-726	-220
	Above 60	3979	4116	4116	4116	137	137	137
Total East Boston	**Above 75**	65	0	0	0	-65	-65	-65
	Above 70	257	432	432	257	175	175	0
	Above 65	4243	4004	3974	4309	-239	-269	66
	Above 60	18975	21006	20660	19549	2031	1685	574
South Boston	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	2335	4214	4438	2272	1879	2103	-63
Boston (Other)	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	626	503	412	626	-123	-214	0
Long Island	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	0	0	0	0	0	0	0
Quincy	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	610	0	0	0	-610	-610	-610
	Above 60	610	610	610	610	0	0	0
Revere	**Above 75**	0	0	0	0	0	0	0
	Above 70	1045	0	0	169	-1045	-1045	-876
	Above 65	3501	2955	2955	3289	-546	-546	-212
	Above 60	6654	5221	5221	6341	-1433	-1433	-313
Winthrop - Point	**Above 75**	2	0	0	2	-2	-2	0
Shirley	**Above 70**	656	439	439	603	-217	-217	-53
	Above 65	1670	1404	1404	1563	-266	-266	-107
	Above 60	2714	2454	2454	2584	-260	-260	-130
Winthrop - Court	**Above 75**	0	0	0	0	0	0	0
Road	**Above 70**	0	0	0	0	0	0	0
	Above 65	1243	832	832	875	-411	-411	-368
	Above 60	3191	3191	3191	3191	0	0	0
Rest of Winthrop	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	469	106	40	469	-363	-429	0
	Above 60	4531	3496	3362	4291	-1035	-1169	-240
Total Winthrop	**Above 75**	2	0	0	2	-2	-2	0
	Above 70	656	439	439	603	-217	-217	-53
	Above 65	3382	2342	2276	2907	-1040	-1106	-475
	Above 60	10436	9141	9007	10066	-1295	-1429	-370
Total Population	**Above 75**	67	0	0	2	-67	-67	-65
Summary	**Above 70**	1958	871	871	1029	-1087	-1087	-929
	Above 65	11736	11017	11016	10505	-719	-720	-1231
	Above 60	46473	51499	50744	46655	5026	4271	182

Notes:
1. Population counts include institutional population on Long Island where applicable.

LOGAN AIRSIDE IMPROVEMENTS FEIS
Table H-2 Continued
2000 Census Counts by Fleet and by Alternative

		37 High RJ Fleet						
Town Name	**DNL**	**Alt 4**	**Alt 1a**	**Alt 1**	**Alt 2/3**	**Alt 1A - Alt 4**	**Alt 1 - Alt 4**	**Alt 2/3 - Alt 4**
Chelsea	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	319	1068	0	319	1068	0
	Above 60	1467	8633	9258	1407	7166	7791	-60
Everett	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	0	0	0	0	0	0	0
E. Boston - Eagle Hill	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	3	274	0	3	274	0
	Above 65	274	4319	4524	274	4045	4250	0
	Above 60	5112	13682	14178	4910	8570	9066	-202
E. Boston - Orient	**Above 75**	65	65	65	65	0	0	0
Hts./Bayswater St.	**Above 70**	352	352	352	352	0	0	0
	Above 65	1247	574	574	1247	-673	-673	0
	Above 60	4597	3537	3537	4597	-1060	-1060	0
E. Boston - Jeffries	**Above 75**	0	0	0	0	0	0	0
Point	**Above 70**	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	170	218	218	170	48	48	0
Other E. Boston	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	862	558	851	862	-304	-11	0
	Above 60	3914	3914	3914	3914	0	0	0
Total East Boston	**Above 75**	65	65	65	65	0	0	0
	Above 70	352	355	626	352	3	274	0
	Above 65	2383	5451	5949	2383	3068	3566	0
	Above 60	13793	21351	21847	13591	7558	8054	-202
South Boston	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	1360	881	770	980	-479	-590	-380
	Above 60	3709	7439	6461	3219	3730	2752	-490
Boston (Other)	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	666	626	412	629	-40	-254	-37
Long Island	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	0	0	0	0	0	0	0
Quincy	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	610	0	0	610	-610	-610	0
	Above 60	610	610	610	610	0	0	0
Revere	**Above 75**	0	0	0	0	0	0	0
	Above 70	2364	1428	1045	2364	-936	-1319	0
	Above 65	4127	3852	3824	4180	-275	-303	53
	Above 60	9566	7066	7001	9566	-2500	-2565	0
Winthrop - Point	**Above 75**	82	0	0	2	-82	-82	-80
Shirley	**Above 70**	656	439	323	570	-217	-333	-86
	Above 65	1555	1280	1177	1466	-275	-378	-89
	Above 60	2584	2329	2242	2454	-255	-342	-130
Winthrop - Court	**Above 75**	0	0	0	0	0	0	0
Road	**Above 70**	369	0	0	369	-369	-369	0
	Above 65	1441	1044	981	1455	-397	-460	14
	Above 60	3191	3191	3191	3191	0	0	0
Rest of Winthrop	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	1002	239	117	1036	-763	-885	34
	Above 60	5115	3680	3446	4799	-1435	-1669	-316
Total Winthrop	**Above 75**	82	0	0	2	-82	-82	-80
	Above 70	1025	439	323	939	-586	-702	-86
	Above 65	3998	2563	2275	3957	-1435	-1723	-41
	Above 60	10890	9200	8879	10444	-1690	-2011	-446
Total Population	**Above 75**	147	65	65	67	-82	-82	-80
Summary	**Above 70**	3741	2222	1994	3655	-1519	-1747	-86
	Above 65	12478	13066	13886	12110	588	1408	-368
	Above 60	40701	54925	54468	39466	14224	13767	-1235

Notes:
1. Population counts include institutional population on Long Island where applicable.

LOGAN AIRSIDE IMPROVEMENTS FEIS
Table H-2 Continued
2000 Census Counts by Fleet and by Alternative

		37 High Fleet						
Town Name	**DNL**	**Alt 4**	**Alt 1a**	**Alt 1**	**Alt 2/3**	**Alt 1A - Alt 4**	**Alt 1 - Alt 4**	**Alt 2/3 - Alt 4**
Chelsea	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	814	2312	0	814	2312	0
	Above 60	3302	9739	10057	2559	6437	6755	-743
Everett	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	0	36	1805	0	36	1805	0
E. Boston - Eagle Hill	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	3	281	0	3	281	0
	Above 65	335	4109	4109	332	3774	3774	-3
	Above 60	6268	14324	13998	4907	8056	7730	-1361
E. Boston - Orient	**Above 75**	65	0	0	65	-65	-65	0
Hts./Bayswater St.	**Above 70**	352	257	257	352	-95	-95	0
	Above 65	1247	574	998	1247	-673	-249	0
	Above 60	5683	3524	4304	4658	-2159	-1379	-1025
E. Boston - Jeffries	**Above 75**	0	0	0	0	0	0	0
Point	**Above 70**	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	1253	1253	736	586	0	-517	-667
Other E. Boston	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	1598	1034	870	1357	-564	-728	-241
	Above 60	4845	5012	4116	3914	167	-729	-931
Total East Boston	**Above 75**	65	0	0	65	-65	-65	0
	Above 70	352	260	538	352	-92	186	0
	Above 65	3180	5717	5977	2936	2537	2797	-244
	Above 60	18049	24113	23154	14065	6064	5105	-3984
South Boston	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	34	0	0	980	-34	-34	946
	Above 60	3340	7092	7119	3709	3752	3779	369
Boston (Other)	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	753	1961	345	629	1208	-408	-124
Long Island	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	0	0	0	0	0	0	0
Quincy	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	610	0	0	610	-610	-610	0
	Above 60	636	610	610	610	-26	-26	-26
Revere	**Above 75**	0	0	0	0	0	0	0
	Above 70	2234	169	169	1456	-2065	-2065	-778
	Above 65	4127	3379	3707	4040	-748	-420	-87
	Above 60	10158	6526	7558	10130	-3632	-2600	-28
Winthrop - Point	**Above 75**	122	0	2	122	-122	-120	0
Shirley	**Above 70**	778	439	521	723	-339	-257	-55
	Above 65	1850	1404	1404	1670	-446	-446	-180
	Above 60	2905	2454	2454	2714	-451	-451	-191
Winthrop - Court	**Above 75**	0	0	0	0	0	0	0
Road	**Above 70**	369	100	149	369	-269	-220	0
	Above 65	1620	1058	1277	1606	-562	-343	-14
	Above 60	3191	3191	3191	3191	0	0	0
Rest of Winthrop	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	1002	304	667	1285	-698	-335	283
	Above 60	5281	4015	4496	5281	-1266	-785	0
Total Winthrop	**Above 75**	122	0	2	122	-122	-120	0
	Above 70	1147	539	670	1092	-608	-477	-55
	Above 65	4472	2766	3348	4561	-1706	-1124	89
	Above 60	11377	9660	10141	11186	-1717	-1236	-191
Total Population	**Above 75**	187	0	2	187	-187	-185	0
Summary	**Above 70**	3733	968	1377	2900	-2765	-2356	-833
	Above 65	12423	12676	15344	13127	253	2921	704
	Above 60	47615	59737	60789	42888	12122	13174	-4727

Notes:
1. Population counts include institutional population on Long Island where applicable.

LOGAN AIRSIDE IMPROVEMENTS FEIS
Table H-2 Continued
2000 Census Counts by Fleet and by Alternative

		45 High Fleet						
Town Name	**DNL**	**Alt 4**	**Alt 1a**	**Alt 1**	**Alt 2/3**	**Alt 1A - Alt 4**	**Alt 1 - Alt 4**	**Alt 2/3 - Alt 4**
Chelsea	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	247	2046	0	247	2046	0
	Above 60	2567	9543	9997	2152	6976	7430	-415
Everett	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	0	0	1519	0	0	1519	0
E. Boston - Eagle Hill	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	268	0	0	268	0
	Above 65	274	3611	3611	268	3337	3337	-6
	Above 60	5837	13998	13499	2774	8161	7662	-3063
E. Boston - Orient	**Above 75**	164	65	65	65	-99	-99	-99
Hts./Bayswater St.	**Above 70**	539	352	352	352	-187	-187	-187
	Above 65	1812	1072	1072	1400	-740	-740	-412
	Above 60	5797	4658	4597	5683	-1139	-1200	-114
E. Boston - Jeffries	**Above 75**	0	0	0	0	0	0	0
Point	**Above 70**	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	1725	1341	1253	685	-384	-472	-1040
Other E. Boston	**Above 75**	0	0	0	0	0	0	0
	Above 70	54	0	0	54	-54	-54	0
	Above 65	2180	913	913	1953	-1267	-1267	-227
	Above 60	4116	4845	4116	3914	729	0	-202
Total East Boston	**Above 75**	164	65	65	65	-99	-99	-99
	Above 70	593	352	620	406	-241	27	-187
	Above 65	4266	5596	5596	3621	1330	1330	-645
	Above 60	17475	24842	23465	13056	7367	5990	-4419
South Boston	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	881	770	881	1360	-111	0	479
	Above 60	4336	10069	9195	4275	5733	4859	-61
Boston (Other)	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	136	0	0	0	-136	-136	-136
	Above 60	2045	2771	2175	1179	726	130	-866
Long Island	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0	0
	Above 60	0	0	0	0	0	0	0
Quincy	**Above 75**	0	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0	0
	Above 65	610	610	0	610	0	-610	0
	Above 60	637	636	610	636	-1	-27	-1
Revere	**Above 75**	0	0	0	0	0	0	0
	Above 70	2955	2234	1134	2371	-721	-1821	-584
	Above 65	5221	4127	3905	4648	-1094	-1316	-573
	Above 60	13556	10321	8772	10697	-3235	-4784	-2859
Winthrop - Point	**Above 75**	247	45	2	208	-202	-245	-39
Shirley	**Above 70**	1119	920	656	920	-199	-463	-199
	Above 65	2106	1916	1670	1916	-190	-436	-190
	Above 60	3509	3067	2714	3067	-442	-795	-442
Winthrop - Court	**Above 75**	0	0	0	0	0	0	0
Road	**Above 70**	592	227	227	436	-365	-365	-156
	Above 65	2689	1911	1628	2061	-778	-1061	-628
	Above 60	3191	3191	3191	3191	0	0	0
Rest of Winthrop	**Above 75**	0	0	0	0	0	0	0
	Above 70	40	0	0	0	-40	-40	-40
	Above 65	1528	973	939	1445	-555	-589	-83
	Above 60	7338	5325	5208	7206	-2013	-2130	-132
Total Winthrop	**Above 75**	247	45	2	208	-202	-245	-39
	Above 70	1751	1147	883	1356	-604	-868	-395
	Above 65	6323	4800	4237	5422	-1523	-2086	-901
	Above 60	14038	11583	11113	13464	-2455	-2925	-574
Total Population	**Above 75**	411	110	67	273	-301	-344	-138
Summary	**Above 70**	5299	3733	2637	4133	-1566	-2662	-1166
	Above 65	17437	16150	16665	15661	-1287	-772	-1776
	Above 60	54654	69765	66846	45459	15111	12192	-9195

Notes:
1. Population counts include institutional population on Long Island where applicable.

LOGAN AIRSIDE IMPROVEMENTS FEIS
Table H-3

Numbers of People Experiencing Benefits (-) or Impacts (+) for Each Alternative vis a vis No Action, using 1990 and 2000 Census Data for Population Counts

29 Low Fleet		Alt 1a - Alt 4		Alt 1 - Alt 4		Alt 2/3 - Alt 4	
Town Name	**DNL**	**1990 Δ**	**2000 Δ**	**1990 Δ**	**2000 Δ**	**1990 Δ**	**2000 Δ**
Chelsea	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	244	401	115	401	-156	-237
	Above 60	138	0	50	0	0	0
Everett	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0
	Above 60	120	1637	120	1897	-220	-319
E. Boston - Eagle Hill	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	0	-752	0	-752	0	0
	Above 60	0	0	N/A	0	N/A	0
E. Boston - Orient Hts./Bayswater St.	**Above 75**	-58	0	-58	0	0	0
	Above 70	-39	-93	-99	-93	-39	-93
	Above 65	139	130	139	125	0	-5
	Above 60	125	293	N/A	293	N/A	-321
E. Boston - Jeffries Point	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0
	Above 60	0	0	0	0	0	0
Other E. Boston	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	0	0	0	0	-202	-194
	Above 60	0	322	N/A	322	N/A	0
Total East Boston	**Above 75**	-58	0	-58	0	0	0
	Above 70	-39	-93	-99	-93	-39	-93
	Above 65	139	-622	139	-627	-202	-199
	Above 60	125	615	125	615	-570	-321
South Boston	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	32	61	32	61	0	0
	Above 60	593	-248	593	-248	172	372
Boston (Other)	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0
	Above 60	0	1429	0	1429	0	-136
Long Island	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0
	Above 60	502	0	502	0	0	0
Quincy	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0
	Above 60	0	0	0	0	0	0
Revere	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	-2	-80	-105	-80	-2	-80
	Above 60	-112	-257	-112	-459	-112	-459
Winthrop - Point Shirley	**Above 75**	-122	-120	-122	-120	-35	-40
	Above 70	-189	-317	-206	-317	-37	-142
	Above 65	-275	-353	-275	-353	-61	-66
	Above 60	-316	-353	N/A	-353	N/A	-47
Winthrop - Court Road	**Above 75**	0	0	0	0	0	0
	Above 70	166	179	166	179	0	-100
	Above 65	240	132	240	132	-154	-30
	Above 60	0	0	N/A	0	N/A	0
Rest of Winthrop	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	0	63	0	63	-64	-292
	Above 60	-155	86	N/A	0	N/A	-207
Total Winthrop	**Above 75**	-122	-120	-122	-120	-35	-40
	Above 70	-23	-138	-40	-138	-37	-242
	Above 65	-35	-158	-35	-158	-279	-388
	Above 60	-471	-267	-547	-353	-419	-254
Total Population Summary	**Above 75**	-180	-120	-180	-120	-35	-40
	Above 70	-62	-231	-139	-231	-76	-335
	Above 65	378	-398	146	-403	-639	-904
	Above 60	895	2909	731	2881	-1149	-1117

Notes:
1. Population counts include institutional population on Long Island where applicable.
2. Shaded blocks indicate neighborhoods where DEIS population counts were consolidated by town but where subsequent counts were broken down in finer detail by neighborhood.

Table H-3 Continued

Numbers of People Experiencing Benefits (-) or Impacts (+) for Each Alternative vis a vis No Action, using 1990 and 2000 Census Data for Population Counts

29 High Fleet		Alt 1a - Alt 4		Alt 1 - Alt 4		Alt 2/3 - Alt 4	
Town Name	**DNL**	**1990 Δ**	**2000 Δ**	**1990 Δ**	**2000 Δ**	**1990 Δ**	**2000 Δ**
Chelsea	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	2613	2866	2613	2863	0	0
	Above 60	2206	2562	2060	2562	163	113
Everett	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0
	Above 60	144	1617	144	1617	0	0
E. Boston - Eagle Hill	**Above 75**		0		0		0
	Above 70	N/A	332	N/A	281	N/A	0
	Above 65		1869		1869		361
	Above 60		1681		1681		433
E. Boston - Orient Hts./Bayswater St.	**Above 75**		0		0		0
	Above 70	N/A	-125	N/A	-192	N/A	-93
	Above 65		-5		-5		-5
	Above 60		-459		-459		-24
E. Boston - Jeffries Point	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0
	Above 60	511	0	511	0	0	0
Other E. Boston	**Above 75**	0	0	0	0	0	0
	Above 70	138	0	138	0	-99	0
	Above 65	1099	47	1004	47	136	-43
	Above 60	2193	866	2193	866	1153	137
Total East Boston	**Above 75**	0	0	0	0	0	0
	Above 70	138	207	138	89	-99	-93
	Above 65	1099	1911	1004	1911	136	313
	Above 60	2704	2088	2704	2088	1153	546
South Boston	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	62	61	37	61	0	0
	Above 60	2037	2881	1118	2540	382	1248
Boston (Other)	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0
	Above 60	0	1429	0	1413	0	-136
Long Island	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0
	Above 60	502	0	502	0	0	0
Quincy	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0
	Above 60	0	0	0	0	0	0
Revere	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	-620	-737	-751	-737	-195	-228
	Above 60	-673	-990	-673	-990	-203	-412
Winthrop - Point Shirley	**Above 75**		-82		-82		-80
	Above 70	N/A	-339	N/A	-408	N/A	-55
	Above 65		-421		-473		-31
	Above 60		-399		-399		-14
Winthrop - Court Road	**Above 75**		0		0		0
	Above 70	N/A	0	N/A	-100	N/A	-100
	Above 65		0		0		0
	Above 60		0		0		0
Rest of Winthrop	**Above 75**		0		0		0
	Above 70	N/A	0	N/A	0	N/A	0
	Above 65		-230		-230		-230
	Above 60		-1046		-1296		-671
Total Winthrop	**Above 75**	-164	-82	-164	-82	-87	-80
	Above 70	-408	-339	-408	-508	0	-155
	Above 65	-778	-651	-796	-703	-376	-261
	Above 60	-1384	-1445	-1536	-1695	-567	-685
Total Population Summary	**Above 75**	-164	-82	-164	-82	-87	-80
	Above 70	-270	-132	-270	-419	-99	-248
	Above 65	2376	3450	2107	3395	-435	-176
	Above 60	5536	8142	4319	7535	928	674

Notes:

1. **Population counts include institutional population on Long Island where applicable.**
2. **Shaded blocks indicate neighborhoods where DEIS population counts were consolidated by town but where subsequent counts were broken down in finer detail by neighborhood.**

Table H-3 Continued

Numbers of People Experiencing Benefits (-) or Impacts (+) for Each Alternative vis a vis No Action, using 1990 and 2000 Census Data for Population Counts

37 Low Fleet		Alt 1a - Alt 4		Alt 1 - Alt 4		Alt 2/3 - Alt 4	
Town Name	**DNL**	**1990 Δ**	**2000 Δ**	**1990 Δ**	**2000 Δ**	**1990 Δ**	**2000 Δ**
Chelsea	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	1807	1716	1807	1811	0	0
	Above 60	1671	2162	1671	1754	31	354
Everett	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0
	Above 60	144	1805	144	1805	0	0
E. Boston - Eagle Hill	**Above 75**	0	0	0	0	0	0
	Above 70	0	268	0	268	0	0
	Above 65	673	503	673	503	0	291
	Above 60	1126	2047	795	2047	0	437
E. Boston - Orient	**Above 75**	0	-65	-58	-65	0	-65
Hts./Bayswater St.	**Above 70**	-39	-93	-99	-93	0	0
	Above 65	-210	-16	-210	-46	0	-5
	Above 60	-508	-153	-508	-499	0	0
E. Boston - Jeffries Point	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0
	Above 60	80	0	80	0	-431	0
Other E. Boston	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	-678	-726	-678	-726	0	-220
	Above 60	0	137	0	137	0	137
Total East Boston	**Above 75**	0	-65	-58	-65	0	-65
	Above 70	-39	175	-99	175	0	0
	Above 65	-215	-239	-215	-269	0	66
	Above 60	698	2031	367	1685	-431	574
South Boston	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	-18	0	-18	0	0	0
	Above 60	2027	1879	2230	2103	6	-63
Boston (Other)	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0
	Above 60	-191	-123	-194	-214	-2	0
Long Island	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0
	Above 60	502	0	502	0	0	0
Quincy	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	0	-610	0	-610	0	-610
	Above 60	0	0	0	0	0	0
Revere	**Above 75**	0	0	0	0	0	0
	Above 70	-1047	-1045	-1047	-1045	-358	-876
	Above 65	-549	-546	-549	-546	-64	-212
	Above 60	-1223	-1433	-1223	-1433	-251	-313
Winthrop - Point Shirley	**Above 75**	-77	-2	-77	-2	-77	0
	Above 70	-327	-217	-327	-217	-109	-53
	Above 65	-254	-266	-254	-266	0	-107
	Above 60	N/A	-260	N/A	-260	N/A	-130
Winthrop - Court Road	**Above 75**	0	0	0	0	0	0
	Above 70	-65	0	-65	0	-65	0
	Above 65	-227	-411	-227	-411	0	-368
	Above 60	N/A	0	N/A	0	N/A	0
Rest of Winthrop	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	-513	-363	-513	-429	-147	0
	Above 60	N/A	-1035	N/A	-1169	N/A	-240
Total Winthrop	**Above 75**	-77	-2	-77	-2	-77	0
	Above 70	-392	-217	-392	-217	-174	-53
	Above 65	-994	-1040	-994	-1106	-147	-475
	Above 60	-1359	-1295	-1404	-1429	-526	-370
Total Population	**Above 75**	-77	-67	-135	-67	-77	-65
Summary	**Above 70**	-1478	-1087	-1538	-1087	-532	-929
	Above 65	31	-719	31	-720	-211	-1231
	Above 60	2269	5026	2093	4271	-1173	182

Notes:

1. **Population counts include institutional population on Long Island where applicable.**
2. **Shaded blocks indicate neighborhoods where DEIS population counts were consolidated by town but where subsequent counts were broken down in finer detail by neighborhood.**

Table H-3 Continued

Numbers of People Experiencing Benefits (-) or Impacts (+) for Each Alternative vis a vis No Action, using 1990 and 2000 Census Data for Population Counts

37 High RJ Fleet		Alt 1a - Alt 4		Alt 1 - Alt 4		Alt 2/3 - Alt 4	
Town Name	**DNL**	**1990 Δ**	**2000 Δ**	**1990 Δ**	**2000 Δ**	**1990 Δ**	**2000 Δ**
Chelsea	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	392	319	1084	1068	0	0
	Above 60	6516	7166	6887	7791	-54	-60
Everett	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0
	Above 60	0	0	0	0	0	0
E. Boston - Eagle Hill	**Above 75**	0	0	0	0	0	0
	Above 70	0	3	1	274	0	0
	Above 65	3013	4045	3040	4250	-7	0
	Above 60	7291	8570	7391	9066	-563	-202
E. Boston - Orient	**Above 75**	0	0	0	0	0	0
Hts./Bayswater St.	**Above 70**	-116	0	-116	0	0	0
	Above 65	-529	-673	-529	-673	35	0
	Above 60	-926	-1060	-1144	-1060	0	0
E. Boston - Jeffries Point	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0
	Above 60	0	48	151	48	0	0
Other E. Boston	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	-337	-304	-68	-11	0	0
	Above 60	151	0	217	0	0	0
Total East Boston	**Above 75**	0	0	0	0	0	0
	Above 70	-116	3	-115	274	0	0
	Above 65	2147	3068	2443	3566	28	0
	Above 60	6516	7558	6615	8054	-563	-202
South Boston	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	-315	-479	-651	-590	-208	-380
	Above 60	3471	3730	2322	2752	-433	-490
Boston (Other)	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0
	Above 60	-192	-40	-245	-254	-49	-37
Long Island	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0
	Above 60	0	0	0	0	0	0
Quincy	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	0	-610	0	-610	0	0
	Above 60	0	0	0	0	0	0
Revere	**Above 75**	0	0	0	0	0	0
	Above 70	-871	-936	-1055	-1319	44	0
	Above 65	-426	-275	-426	-303	0	53
	Above 60	-1849	-2500	-2093	-2565	571	0
Winthrop - Point Shirley	**Above 75**	-164	-82	-164	-82	-87	-80
	Above 70	-280	-217	-344	-333	-160	-86
	Above 65	-237	-275	-276	-378	-90	-89
	Above 60	-236	-255	-332	-342	-126	-130
Winthrop - Court Road	**Above 75**	0	0	0	0	0	0
	Above 70	-166	-369	-166	-369	0	0
	Above 65	-533	-397	-533	-460	0	14
	Above 60	0	0	0	0	0	0
Rest of Winthrop	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	-664	-763	-664	-885	0	34
	Above 60	-1035	-1435	-1647	-1669	-179	-316
Total Winthrop	**Above 75**	-164	-82	-164	-82	-87	-80
	Above 70	-446	-586	-510	-702	-160	-86
	Above 65	-1434	-1435	-1473	-1723	-90	-41
	Above 60	-1271	-1690	-1979	-2011	-305	-446
Total Population	**Above 75**	-164	-82	-164	-82	-87	-80
Summary	**Above 70**	-1433	-1519	-1680	-1747	-116	-86
	Above 65	364	588	977	1408	-270	-368
	Above 60	13191	14224	11507	13767	-833	-1235

Notes:

1. **Population counts include institutional population on Long Island where applicable.**
2. **Shaded blocks indicate neighborhoods where DEIS population counts were consolidated by town but where subsequent counts were broken down in finer detail by neighborhood.**

Table H-3 Continued

Numbers of People Experiencing Benefits (-) or Impacts (+) for Each Alternative vis a vis No Action, using 1990 and 2000 Census Data for Population Counts

37 High Fleet		Alt 1a - Alt 4		Alt 1 - Alt 4		Alt 2/3 - Alt 4	
Town Name	**DNL**	**1990 Δ**	**2000 Δ**	**1990 Δ**	**2000 Δ**	**1990 Δ**	**2000 Δ**
Chelsea	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	1415	814	2064	2312	0	0
	Above 60	5393	6437	5566	6755	-368	-743
Everett	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0
	Above 60	0	36	238	1805	0	0
E. Boston - Eagle Hill	**Above 75**	0	0	0	0	0	0
	Above 70	0	3	120	281	0	0
	Above 65	2356	3774	2356	3774	0	-3
	Above 60	7321	8056	N/A	7730	N/A	-1361
E. Boston - Orient	**Above 75**	0	-65	0	-65	0	0
Hts./Bayswater St.	**Above 70**	-198	-95	-198	-95	-70	0
	Above 65	-574	-673	-425	-249	0	0
	Above 60	-1677	-2159	N/A	-1379	N/A	-1025
E. Boston - Jeffries Point	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0
	Above 60	568	0	-80	-517	-511	-667
Other E. Boston	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	-541	-564	-668	-728	-554	-241
	Above 60	0	167	N/A	-729	N/A	-931
Total East Boston	**Above 75**	0	-65	0	-65	0	0
	Above 70	-198	-92	-78	186	-70	0
	Above 65	1241	2537	1263	2797	-554	-244
	Above 60	6212	6064	5087	5105	-2583	-3984
South Boston	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	-7	-34	-37	-34	817	946
	Above 60	2908	3752	3244	3779	324	369
Boston (Other)	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0
	Above 60	-242	1208	-296	-408	-49	-124
Long Island	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0
	Above 60	502	0	502	0	0	0
Quincy	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	0	-610	0	-610	0	0
	Above 60	0	-26	0	-26	0	-26
Revere	**Above 75**	0	0	0	0	0	0
	Above 70	-2088	-2065	-2088	-2065	-437	-778
	Above 65	-506	-748	-442	-420	0	-87
	Above 60	-2814	-3632	-2393	-2600	-782	-28
Winthrop - Point Shirley	**Above 75**	-199	-122	-199	-120	0	0
	Above 70	-408	-339	-343	-257	0	-55
	Above 65	-468	-446	-411	-446	-214	-180
	Above 60	-427	-451	N/A	-451	N/A	-191
Winthrop - Court Road	**Above 75**	0	0	0	0	0	0
	Above 70	-106	-269	-106	-220	0	0
	Above 65	-427	-562	-305	-343	0	-14
	Above 60	0	0	N/A	0	N/A	0
Rest of Winthrop	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	-740	-698	-280	-335	0	283
	Above 60	-1038	-1266	N/A	-785	N/A	0
Total Winthrop	**Above 75**	-199	-122	-199	-120	0	0
	Above 70	-514	-608	-449	-477	0	-55
	Above 65	-1635	-1706	-996	-1124	-214	89
	Above 60	-1465	-1717	-1079	-1236	-171	-191
Total Population	**Above 75**	-199	-187	-199	-185	0	0
Summary	**Above 70**	-2800	-2765	-2615	-2356	-507	-833
	Above 65	508	253	1852	2921	49	704
	Above 60	10494	12122	10869	13174	-3629	-4727

Notes:

1. **Population counts include institutional population on Long Island where applicable.**
2. **Shaded blocks indicate neighborhoods where DEIS population counts were consolidated by town but where subsequent counts were broken down in finer detail by neighborhood.**

Table H-3 Continued

Numbers of People Experiencing Benefits (-) or Impacts (+) for Each Alternative vis a vis No Action, using 1990 and 2000 Census Data for Population Counts

45 High Fleet		Alt 1a - Alt 4		Alt 1 - Alt 4		Alt 2/3 - Alt 4	
Town Name	**DNL**	**1990 Δ**	**2000 Δ**	**1990 Δ**	**2000 Δ**	**1990 Δ**	**2000 Δ**
Chelsea	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	392	247	1807	2046	0	0
	Above 60	6169	6976	6237	7430	-446	-415
Everett	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0
	Above 60	0	0	144	1519	0	0
E. Boston - Eagle Hill	**Above 75**	N/A	0	N/A	0	N/A	0
	Above 70		0		268		0
	Above 65		3337		3337		-6
	Above 60		8161		7662		-3063
E. Boston - Orient Hts./Bayswater St.	**Above 75**	N/A	-99	N/A	-99	N/A	-99
	Above 70		-187		-187		-187
	Above 65		-740		-740		-412
	Above 60		-1139		-1200		-114
E. Boston - Jeffries Point	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0
	Above 60	0	-384	-232	-472	-690	-1040
Other E. Boston	**Above 75**	0	0	0	0	0	0
	Above 70	-109	-54	-113	-54	-109	0
	Above 65	-14	-1267	-28	-1267	-832	-227
	Above 60	5892	729	5647	0	-2768	-202
Total East Boston	**Above 75**	0	-99	0	-99	0	-99
	Above 70	-109	-241	-113	27	-109	-187
	Above 65	-14	1330	-28	1330	-832	-645
	Above 60	5892	7367	5415	5990	-3458	-4419
South Boston	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	-288	-111	48	0	315	479
	Above 60	4993	5733	3810	4859	-76	-61
Boston (Other)	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	0	-136	0	-136	0	-136
	Above 60	-736	726	-1118	130	-736	-866
Long Island	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	0	0	0	0	0	0
	Above 60	0	0	0	0	0	0
Quincy	**Above 75**	0	0	0	0	0	0
	Above 70	0	0	0	0	0	0
	Above 65	0	0	0	-610	0	0
	Above 60	-1456	-1	-1456	-27	-1456	-1
Revere	**Above 75**	0	0	0	0	0	0
	Above 70	-667	-721	-1472	-1821	-462	-584
	Above 65	-749	-1094	-997	-1316	-719	-573
	Above 60	-2878	-3235	-3883	-4784	-2108	-2859
Winthrop - Point Shirley	**Above 75**	N/A	-202	N/A	-245	N/A	-39
	Above 70		-199		-463		-199
	Above 65		-190		-436		-190
	Above 60		-442		-795		-442
Winthrop - Court Road	**Above 75**	N/A	0	N/A	0	N/A	0
	Above 70		-365		-365		-156
	Above 65		-778		-1061		-628
	Above 60		0		0		0
Rest of Winthrop	**Above 75**	N/A	0	N/A	0	N/A	0
	Above 70		-40		-40		-40
	Above 65		-555		-589		-83
	Above 60		-2013		-2130		-132
Total Winthrop	**Above 75**	-157	-202	-200	-245	-32	-39
	Above 70	-626	-604	-706	-868	-248	-395
	Above 65	-1109	-1523	-2083	-2086	-1145	-901
	Above 60	-2024	-2455	-2690	-2925	-481	-574
Total Population Summary	**Above 75**	-157	-301	-200	-344	-32	-138
	Above 70	-1402	-1566	-2291	-2662	-819	-1166
	Above 65	-1768	-1287	-1253	-772	-2381	-1776
	Above 60	9960	15111	6459	12192	-8761	-9195

Notes:

1. **Population counts include institutional population on Long Island where applicable.**
2. **Shaded blocks indicate neighborhoods where DEIS population counts were consolidated by town but where subsequent counts were broken down in finer detail by neighborhood.**

Appendix I
Cumulative Construction Noise Analysis

➢ **I-1** Cumulative Construction Noise Analysis

Table I-1
Cumulative Construction Noise - Average Daily Equivalent (Leq) In Decibels

		2003				2004				2005				2006				2007			
Receptor	**Activity**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
14	International Gateway	45.0	38.0																		
(A in International Gateway EIR)	West Garage & Roads	50.0	45.0	44.0	40.0																
	CA/T Contract C8A1	42.0	41.0	39.0	37.0	29.0															
	Terminal A	63.0	63.0	63.0	65.0	61.0	61.0	61.0	61.0												
	American Airlines Terminal B, Pier 1A	56.0	56.0	55.0	55.0	55.0	55.0	54.0	53.0	52.0	50.0	41.0	35.0								
	Massport FIS	58.0	58.0	54.0	54.0	54.0	54.0	56.0	56.0												
	Total Other Projects	65.0	64.9	64.1	65.7	62.6	62.6	62.8	62.7	52.0	50.0	41.1	35.0								
	Airside All Projects	57.9	57.4	58.9	57.5		53.2	53.8	50.6			44.0	44.0		43.2	43.1			45.5	45.2	
	Total Construction	65.8	65.6	65.3	66.3	62.6	63.1	63.3	62.9	52.0	50.0	45.8	44.5		43.2	43.1			45.5	45.2	
	Ambient	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0
	Total with Ambient	70.7	70.6	70.5	70.9	69.9	70.0	70.0	70.0	69.1	69.1	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0

Appendix J
Review of Selected Topics

➢ **J-1** Review of Selected Topics by the Center for Advanced Aviation System Development (CAASD) of the MITRE Corporation

Review of Selected Topics from the
Boston Logan Airport Environmental Impact Statement

2 May 2002

In August of 2001, The Federal Aviation Administration New England Region asked the Center for Advanced Aviation System Development (CAASD) of the MITRE Corporation to review and comment on four topics that arose from the SDEIS: [1, 2]

- Regional Jet Forecasts: Are the percentages of regional jets (RJ) and the distribution by RJ type reasonable in the 29M RJ and the 37.5M High RJ fleet forecasts?
- Runway Usage for Regional Jets: Are the Airside SDEIS assumptions regarding the types of RJs that can use Runway 14/32 for arrivals and departures in various wind and runway conditions valid?
- Delay Results: Are the delay savings forecast in the SDEIS reasonable, particularly under long-term conditions when large delays are predicted?
- Limited Capacity Analysis: How do the capacities of two specific runway configurations, 32/33L/27 (proposed) vs. 22R/22L/27 (existing), compare under visual conditions and calm winds?

Forecasts of Regional Jet Operations

The two RJ traffic scenarios developed as part of the Airside Project were reviewed: the 29M RJ Scenario which assumes 29 million passenger trips per year (in about 2004), and the 37.5M High RJ Scenario which assumes 37.5 million trips (in about 2015).

29M RJ Scenario

The 29M RJ Scenario appears to be a reasonable approximation of present day traffic, as illustrated in Figure 1, which compares the annual number of flights by aircraft type with current traffic. The current traffic mix, based on planned air carrier schedules for September 2001, shows slightly more turboprop operations and slightly fewer RJ and large jet operations than the 29M RJ Scenario.

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1 *Logan Airside Improvements Planning Project Supplemental Draft Environmental Impact Statement/Final Environmental Impact Report* (SDEIS), Massachusetts Port Authority and Federal Aviation Administration, March 2001.

2 This analysis began in August, 2001 and did not address the possible effects of the events of September 11. These events, when viewed six months later in the spring of 2002, do not appear, however, to materially affect the long-term conclusions of this analysis.

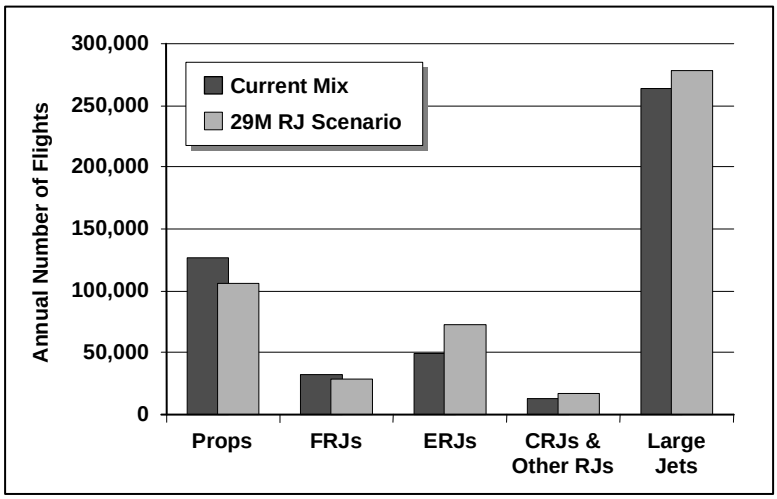


Figure 1: Estimated Annual Number of Flights at Boston

There was a sharp drop in turboprop traffic and an increase in RJ traffic from September 2000 to 2001, the year immediately preceding the analysis, as shown in Table 1. Among just RJ flights, there has also been a decrease in Canadair RJ (CRJ) traffic and a sharp increase in Fairchild-Dornier RJ (FRJ) traffic, while the Embraer RJ (ERJ) share has remained almost stable. Overall, the 29M RJ Scenario is consistent with recent trends, and represents a reasonable estimate of the number of RJ flights and the distribution among types of RJ aircraft.

Table 1: Recent Trends in Regional Jet Traffic at Boston

		Recent Schedules	SDEIS Scenarios	
		Sept 00 → Sept 01	29M RJ	37.5M RJ
All	Jets	56% → 54%	56%	54%
	Props	34% → 26%	21%	12%
	RJs	10% → 20%	23%	34%
RJs Only	ERJs	57% → 52%	61%	54%
	FRJs	0% → 34%	25%	23%
	CRJs & Others	43% → 14%	14%	23%

37.5M High RJ Scenario

The percentage of RJ flights in the 37.5M High RJ Scenario is probably somewhat low, but within the range of reasonable forecasts. The 37.5M High RJ Scenario includes RJs at 34 percent of all operations and props at 12 percent, or 46 percent if considered together, recognizing that RJs are rapidly replacing turboprops. This is no different than the current combined mix of props (26 percent) and RJs (20 percent). Recent trends suggest a continued growth in RJ use at Boston. Existing firm RJ orders and options held by carriers operating at Boston suggest that substantial growth is possible and likely. Thus, RJs are likely to continue to grow at a faster rate, thereby capturing a larger percentage of the fleet unless increasing congestion and delays lead to a shift to larger aircraft.

Runway Usage for Regional Jets

Questions were raised about the ability of regional jets to use the new runway for arrivals and departures in various wind and runway conditions. Information compiled from discussions with industry and RJ operators as part of this analysis, though limited, is consistent with SDEIS assumptions:

- FRJs would use the 5,000-foot runway for arrivals under most operating conditions.
- ERJs would *probably* use the runway when it is dry and there is no tailwind.[3]
- CRJs would not likely use the new runway.

The FAA has subsequently contacted American Eagle and Atlantic Coast Airlines who have confirmed their intentions to use the new runway, consistent with the assumptions used in the Airside analysis.

Delay Results

The projections of long-term delay growth in the SDEIS, for at least some of the scenarios, appear to be too high. The average runway-related delay per flight is shown in Figure 2 for the 2015 scenarios (i.e., the 37.5 million passengers per year level). The SDEIS predicted an increase in delays from about 15 minutes in 1998 to about 25 to 40 minutes for the No Action Alternative in 2015, an increase of 85 to 173 percent. The SDEIS also predicted that delays will increase to about 20 to 25 minutes for the Preferred Alternative in 2015 with the new runway, an increase of about 37 to 93 percent.

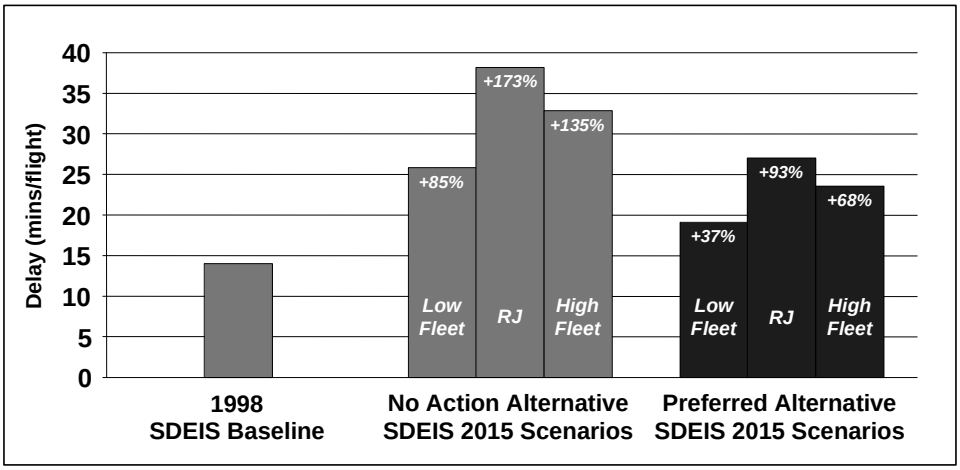


Figure 2: Predicted Growth in Average Runway Delays from the SDEIS

The delay growth for the RJ and High Fleet Scenarios, which both reflect more smaller aircraft and thus more aircraft operations, seem particularly high. The Low Fleet Scenario assumes

[3] The runway is expected to be used only during headwind or calm conditions.

fewer smaller aircraft and thus fewer aircraft operations, and as a result, the delay growth seems high, but more reasonable.

Delays at Boston are already among the highest in the nation, as shown in Figure 3, and are already near or at the limits that airlines and passengers tolerate. The large increases in delay predicted in the SDEIS seem unlikely in light of actions taken in recent years to reduce delays at Atlanta, Newark, San Francisco, LaGuardia, and elsewhere. Airlines, Massport, and the Federal government would likely act to limit delay growth before delays reach levels predicted in the SDEIS.[4]

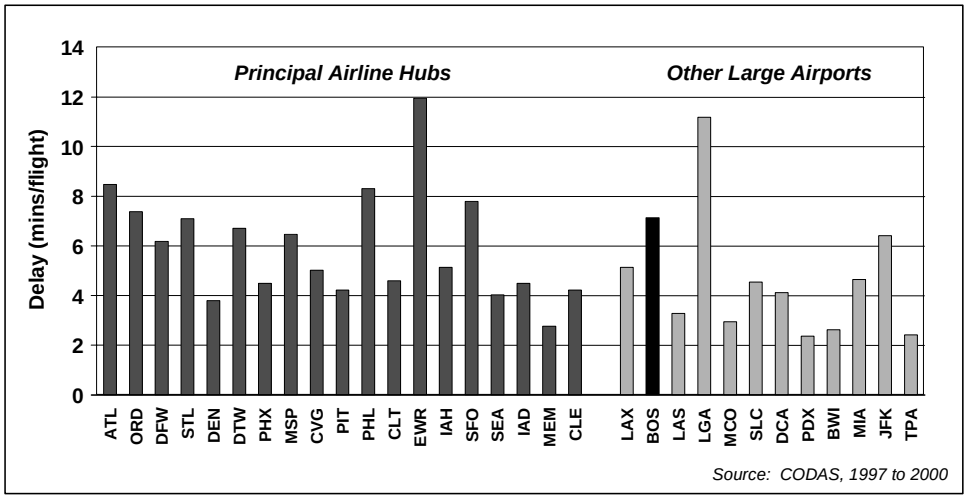


Figure 3: Average Airport Capacity-Related Delays at the Nation's Most Congested Airports

Predictions of high delays, such as those in the SDEIS, are *very* sensitive to the estimates of capacity and demand upon which they are based. Very accurate predictions of future airport capacity, traffic levels, fleet mix, and airport operating procedures are required to predict high delays reliably. Such forecasts are difficult to make, especially for relatively long forecast horizons.

In summary, the magnitude of the overall delays seems too large, and consequently, the magnitude of the delay savings attributable to the new runway may be overstated, but nevertheless, the savings are still substantial under almost any reasonable long term traffic forecast.

Limited Capacity Analysis

The benefits of the new runway depend on the capacity of the runway configuration that uses the runway. The capacity of the new configuration, 32/33L/27, was compared with one of the existing high capacity and frequently used configurations, 22L/22R/27 under visual calm wind

[4] The EIS documents do note that Massport will likely implement demand management measures if over-scheduling and high delays occur. Nevertheless, Runway 14/32 provides significant delay reductions, even if demand management is implemented.

conditions and assuming the 37.5M High RJ Scenario traffic mix. Three cases were considered for the new configuration, as shown in Figure 4.

The capacities were estimated using the Enhanced Airfield Capacity Model and are listed in Figure 4. The capacity estimates show that the 22R/22L/27 configuration is as good or better because it permits more operations than any of the 32/33L/27 configurations. Configuration 22R/22L/27 also can provide more flexibility in assigning arrivals to runways. On the other hand, the 32/33L/27 configuration can provide nearly as much capacity as 22R/22L/27 and permits greater operational flexibility to reduce noise impacts.

Summary of Analysis Results

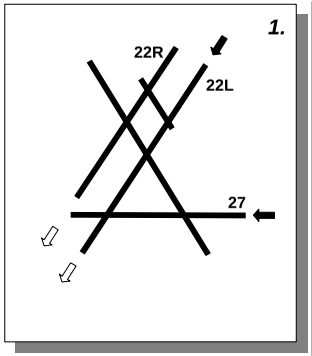
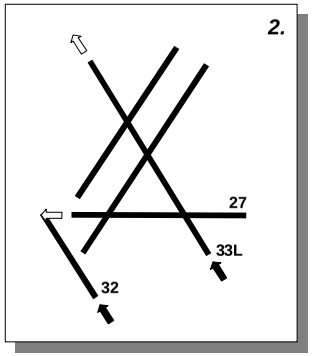
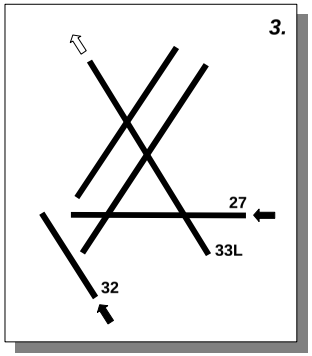
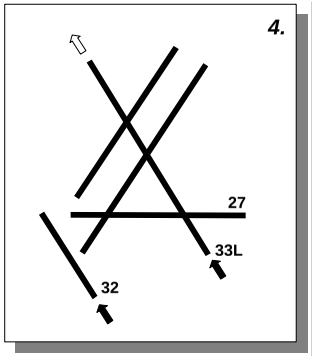
The results of the analysis of the four questions can be summarized as follows:

1. The forecast of the number of RJ flights and the distribution among RJ types for the 29M RJ Scenario appears to be reasonable and consistent with current trends. The 37.5M High RJ Scenario is within the range of reasonable forecasts, although it appears to understate both the number of RJ flights and the proportion of Fairchild-Dornier RJs.
2. Independent discussions with industry and RJ operators confirmed the SDEIS assumptions regarding which types of RJs would use the new runway.
3. The estimates of delay growth in the SDEIS appear to be high, and thus, the delay savings attributable to the new runway may be overstated. Airlines, Massport, or the Federal Government would likely act to limit delay growth.
4. The capacity of the existing 22R/22L/27 configuration is equal to or higher than the new 32/33L/27 configuration under visual conditions and calm winds.

Conclusions

The first conclusion from the review of the SDEIS is that the rationale for the runway appears to be valid: the new runway is expected to reduce delays under NW wind visual meteorological conditions (VMC). It can also provide more operational flexibility to permit more frequent use of the NW wind runway configuration, which has lower noise impacts.

The second conclusion is that the estimates of delays and delay growth in the SDEIS seem high and as a result, the projected delay savings from Runway 32 seem to be overstated, though still substantial. Airlines, Massport, or the Federal government will likely take actions to reduce delays before they reach the projected levels, as the SDEIS acknowledges. In addition, other existing runway configurations at Boston provide as much or more capacity, suggesting that these other configurations may be used more than the SDEIS has assumed.

	Current 22R/22L/27 Configuration	***Possible Uses of New 32/33L/27 Configuration***		
				
	Arrivals: 27 & 22L (LAHSO) Departures: 22R & 22L	***Arrivals: 32 & 33L Departures: 27 & 33L***	***Arrivals: 27 & 32 Departures: 33L***	***Arrivals: 32 & 33L Departures: 33L***
	Arrivals & Departures	**Arrivals & Departures**	**Arrivals & Departures**	**Arrivals & Departures**
Hourly Capacity	**115**	**112**	**101**	**75**

Note: The arrival capacity estimates are constrained by the assumed fleet mix for the 37.5 RJ Scenario. The number of arrivals to runways dedicated to RJs and props are limited by their relative proportion in the traffic mix (~40 percent) in the 37.5 RJ Scenario.

Figure 4: Airport Capacity Estimates under Visual Calm Wind Conditions